API Well Number: 43013520860000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
Thorne 3-31B4

2. TYPE OF WORK
DRILL NEW WELL ● REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
ALTAMONT

4. TYPE OF WELL
Oil Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME

6. NAME OF OPERATOR
EP ENERGY E&P COMPANY, L.P.

7. OPERATOR PHONE
713 997-5038

8. ADDRESS OF OPERATOR
1001 Louisiana, Houston, TX, 77002

9. OPERATOR E-MAIL
maria.gomez@epenergy.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
Fee

11. MINERAL OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ○ FEE ●

12. SURFACE OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ○ FEE ●

13. NAME OF SURFACE OWNER (if box 12 = 'fee')
Richard Thorne

14. SURFACE OWNER PHONE (if box 12 = 'fee')
708-203-5775

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
21 East Washington Street, Villa Park, IL 60181

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ○ (Submit Commingling Application) NO ●

19. SLANT
VERTICAL ● DIRECTIONAL ○ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	900 FSL 1400 FEL	SWSE	31	2.0 S	4.0 W	U
Top of Uppermost Producing Zone	900 FSL 1400 FEL	SWSE	31	2.0 S	4.0 W	U
At Total Depth	900 FSL 1400 FEL	SWSE	31	2.0 S	4.0 W	U

21. COUNTY
DUCHESNE

22. DISTANCE TO NEAREST LEASE LINE (Feet)
900

23. NUMBER OF ACRES IN DRILLING UNIT
640

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2600

26. PROPOSED DEPTH
MD: 12600 TVD: 12600

27. ELEVATION - GROUND LEVEL
6051

28. BOND NUMBER
400JU0708

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
Duchesne City

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Cond	20	13.375	0 - 800	54.5	J-55 LT&C	8.8	Class G	1000	1.15	15.8
Surf	12.25	9.625	0 - 4000	40.0	N-80 LT&C	9.5	35/65 Poz	560	3.16	11.0
							Premium Lite High Strength	191	1.33	14.2
I1	8.75	7	0 - 9800	29.0	P-110 LT&C	10.8	Premium Lite High Strength	378	2.31	12.0
							Premium Lite High Strength	91	1.91	12.5
L1	6.125	5	9600 - 12600	13.5	P-110 LT&C	13.5	50/50 Poz	229	1.56	14.2

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ COMPLETE DRILLING PLAN
- ☑ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ☑ TOPOGRAPHICAL MAP

NAME Maria S. Gomez | **TITLE** Principal Regulatory Analyst | **PHONE** 713 997-5038

SIGNATURE | **DATE** 03/09/2013 | **EMAIL** maria.gomez@epenergy.com

API NUMBER ASSIGNED
43013520860000

APPROVAL

Permit Manager

RECEIVED: April 30, 2013

Thorne 3-31B4
Sec. 31, T2S, R4W
DUCHESNE COUNTY, UT

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. **Estimated Tops of Important Geologic Markers**

Formation	Depth
Green River (GRRV)	4,818’
Green River (GRTN1)	5,628’
Mahogany Bench	6,668’
L. Green River	8,008’
Wasatch	9,818’
T.D. (Permit)	12,600’

2. **Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:**

Substance	Formation	Depth
	Green River (GRRV)	4,818’
	Green River (GRTN1)	5,628’
	Mahogany Bench	6,668’
Oil	L. Green River	8,008’
Oil	Wasatch	9,818’

3. **Pressure Control Equipment:** (Schematic Attached)

A 4.5” by 20.0” rotating head on structural pipe from surface to 800’. A 4.5” by 13 3/8” Smith Rotating Head and 5M Annular from 800’ to 4,000’ on Conductor. A 5M BOP stack, 5M Annular, and 5M kill lines and choke manifold used from 4,000’ to 9,800’. A 10M BOE w/rotating head, 5M annular, blind rams & mud cross from 9,800’ to TD. The BOPE and related equipment will meet the requirements of the 5M and 10M system.

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11” 5M x 11” 10M spool, 11” x 10M psi BOP and 5M psi Annular will be nippled up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock, floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low lest and 4,000 psi high test. The 10M BOP will be installed

RECEIVED: March 09, 2013

with 3 ½" pipe rams, blind rams, mud cross and rotating head from intermediate shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

Statement on Accumulator System and Location of Hydraulic Controls:

Precision Rig # 404 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

Auxiliary Equipment:

A) Pason monitoring systems with gas monitor 800' – TD.
B) Mud logger with gas monitor – 4,000' to TD
C) Choke manifold with one manual and one hydraulic operated choke
D) Full opening floor valve with drill pipe thread
E) Upper and lower Kelly cock
F) Shaker, de-sander and de-silter, and centrifuge.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Wellbore Diagram.
All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations will be based on: 25% excess over gauge hole in the liner section, 10% excess over gauge hole in the intermediate section, and 75% excess on the lead and 50% excess on the tail over gauge hole volume for the surface hole. Actual volumes pumped will be a minimum of the volumes stated above, however, actual hole size will be based on caliper logs in the liner and intermediate sections. Gauge hole will be used for the surface section.

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	WBM	8.8 – 9.5
Intermediate	WBM	9.5 – 10.8
Production	WBM	10.8 – 13.5

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Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program**:

Logs:
Mud Log: 4,000' - TD.
Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from base of surface casing to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,600' TD equals approximately 8,845 psi. This is calculated based on a 0.702 psi/foot gradient (13.5 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 6,073 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,800' = 7,840 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 6,073 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**

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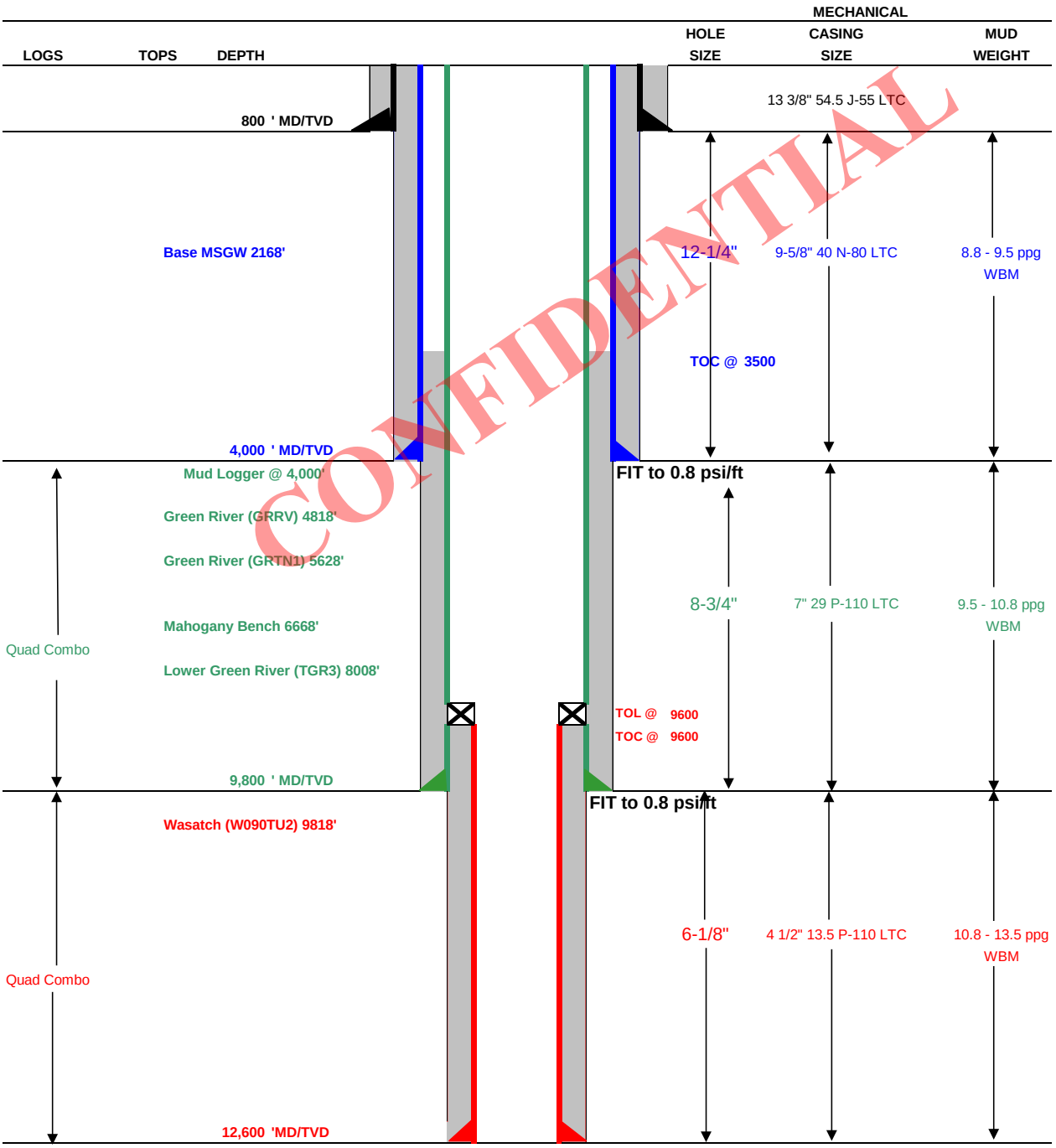
EP ENERGY

Drilling Schematic

Company Name:	EP ENERGY	**Date:**	March 6, 2013
Well Name:	Thorne 3-31B4	**TD:**	12,600
Field, County, State:	Altamont - Bluebell, Duchesne, Utah	**AFE #:**	
Surface Location:	Sec 31 T2S R4W 900' FSL 1400' FEL	**BHL:**	Straight Hole
Objective Zone(s):	Green River, Wasatch	**Elevation:**	6053
Rig:	Precision 404	**Spud (est.):**	

BOPE Info: 5.0 x 13 3/8 rotating head from800' to 4,000' 11 5M BOP stack and 5M kill lines and choke manifold used from 4,000' to 9,800' 11 10M BOE w/rotating head, 5M annular, 3.5 rams, blind rams & mud cross from 9,800' to TD



DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	800	54.5	J-55	LTC	2,730	1,140	1,399
SURFACE	9-5/8"	0	4000	40.00	N-80	LTC	3,090	5,750	820
INTERMEDIATE	7"	0	9800	29.00	P-110	LTC	11,220	8,530	797
PRODUCTION LINER	4 1/2"	9600	12600	13.50	P-110	LTC	12,410	10,680	338

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		800	Class G + 3% CACL2	1000	100%	15.8 ppg	1.15
SURFACE	Lead	3,500	Boral Craig POZ 35%, Mountain G 65%, Bentonite Wyoming 8%, Silicate 5 lbm/sk, Pol-E Flake 0.125 lbm/sk, Kwik Seal 0.25 lb/sk	560	75%	11.0 ppg	3.16
	Tail	500	Halco-light premium+3 lb/sk Silicate+0.3% Econolite+1% Salt+0.25 lbm/sk Kol-Seal+0.24 lb/sk Kwik Seal+ HR-5	191	50%	14.2 ppg	1.33
INTERMEDIATE	Lead	5,300	Hallco-Light-Premium+4% Bentonite+0.4% Econolite+0.2% Halad322+3 lb/sk Silicalite Compacted+0.8% HR-5+ 0.125 lb/sk Poly-E-Flake	378	10%	12.0 ppg	2.31
	Tail	1,000	Hallco-Light-Premium+0.2% Econolite+ 0.3% Versaset+0.2% Halad322+0.8% HR-5+ 0.3% SuperCBL+ 0.125 lb/sk Poly-E-Flake	91	10%	12.5 ppg	1.91
PRODUCTION LINER		3,000	Halco- 50/50 Poz Premium Cement+20% SSA-1+0.3% Super CBL+ 0.3% Halad-344+0.3% Halad-413+ 0.2% SCR-100+ 0.125 lb/sk Poly-E-Flake + 3 lb/sk Silicat	229	25%	14.20	1.56

FLOAT EQUIPMENT & CENTRALIZERS	
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing.
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar & Stage collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 8,000'.
LINER	Float shoe, 1 joint, float collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Joe Cawthorn 713-997-5929

MANAGER: Tommy Gaydos

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EP ENERGY E&P COMPANY, L.P.
THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.

PROCEED NORTH ON PAVED STATE HIGHWAY 87 FROM THE INTERSECTION OF HIGHWAY 87 WITH U.S. HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 5.96 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL SOUTHEASTERLY 0.67 MILES ON A GRAVEL ROAD TO AN INTERSECTION;

TURN LEFT AND TRAVEL EASTERLY 0.33 MILES ON A GRAVEL ROAD TO AN INTERSECTION;

TURN LEFT AND TRAVEL NORTH 0.80 MILES ON A GRAVEL ROAD TO THE BEGINNING OF THE ACCESS ROAD;

CONTINUE NORTH AND THEN WEST 0.50 MILES TO THE PROPOSED WELL LOCATION;

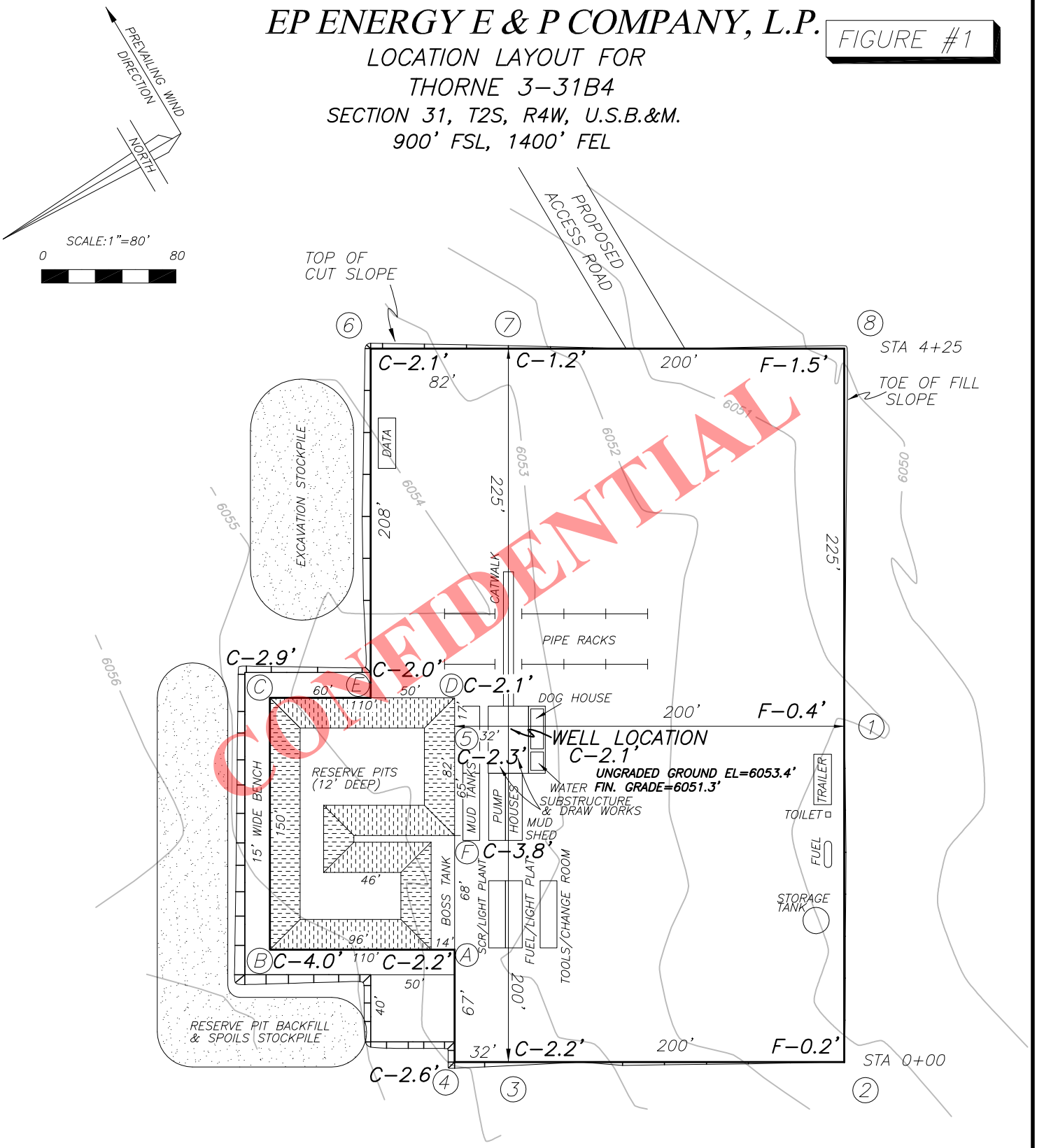
TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 8.26 MILES.

RECEIVED: March 09, 2013

EP ENERGY E & P COMPANY, L.P.

FIGURE #1

LOCATION LAYOUT FOR
THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.
900' FSL, 1400' FEL



PROFESSIONAL LAND SURVEYOR
No. 148951
JERRY D. ALLRED
4 OCT '12
STATE OF UTAH

Jerry D. Allred

4 OCT 2012 01-128-318

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

RECEIVED: March 09, 2013

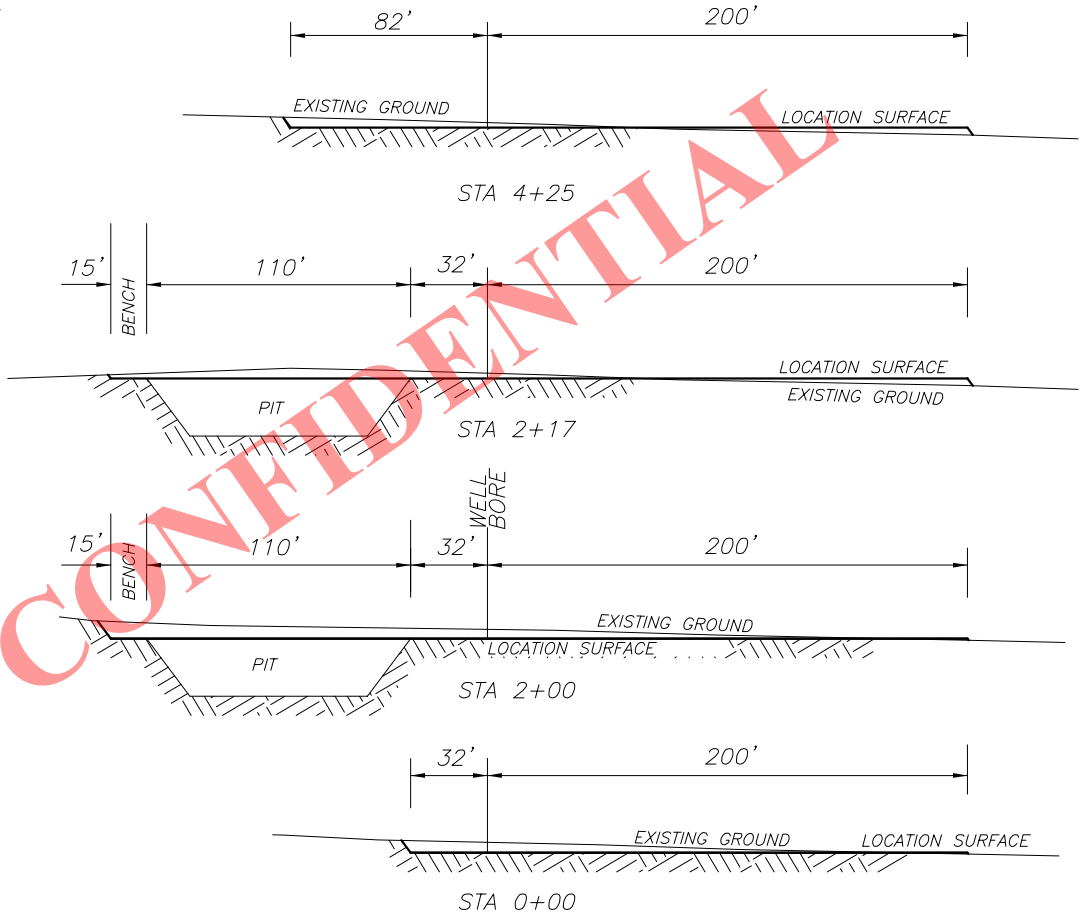
EP ENERGY E & P COMPANY, L.P.

FIGURE #2

LOCATION LAYOUT FOR
THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.
900' FSL, 1400' FEL

1"=40'
X-SECTION SCALE
1"=80'

NOTE: ALL CUT/FILL SLOPES ARE 1½:1 UNLESS OTHERWISE NOTED



APPROXIMATE QUANTITIES

TOTAL CUT (INCLUDING PIT) = 8651 CU. YDS.

PIT CUT	=	4572 CU. YDS.
TOPSOIL STRIPPING: (6")	=	2494 CU. YDS.
REMAINING LOCATION CUT	=	1585 CU. YDS

TOTAL FILL = 513 CU. YDS.

LOCATION SURFACE GRAVEL=1374 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=711 CU. YDS.

PROFESSIONAL LAND SURVEYOR
No. 148951
JERRY D. ALLRED
4 OCT '12
STATE OF UTAH

Jerry D. Allred

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

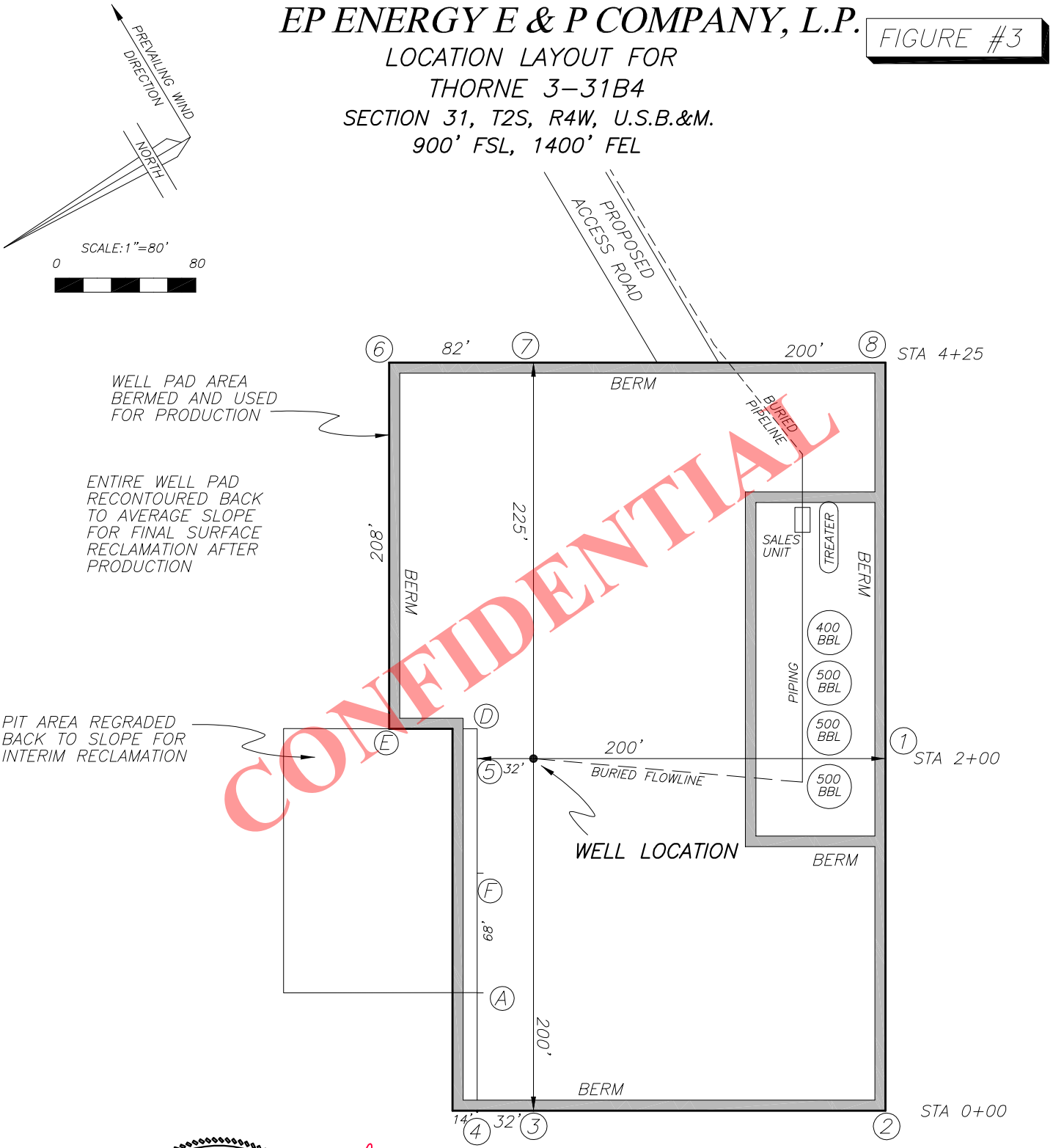
4 OCT 2012 01-128-318

RECEIVED: March 09, 2013

EP ENERGY E & P COMPANY, L.P.

FIGURE #3

LOCATION LAYOUT FOR
THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.
900' FSL, 1400' FEL



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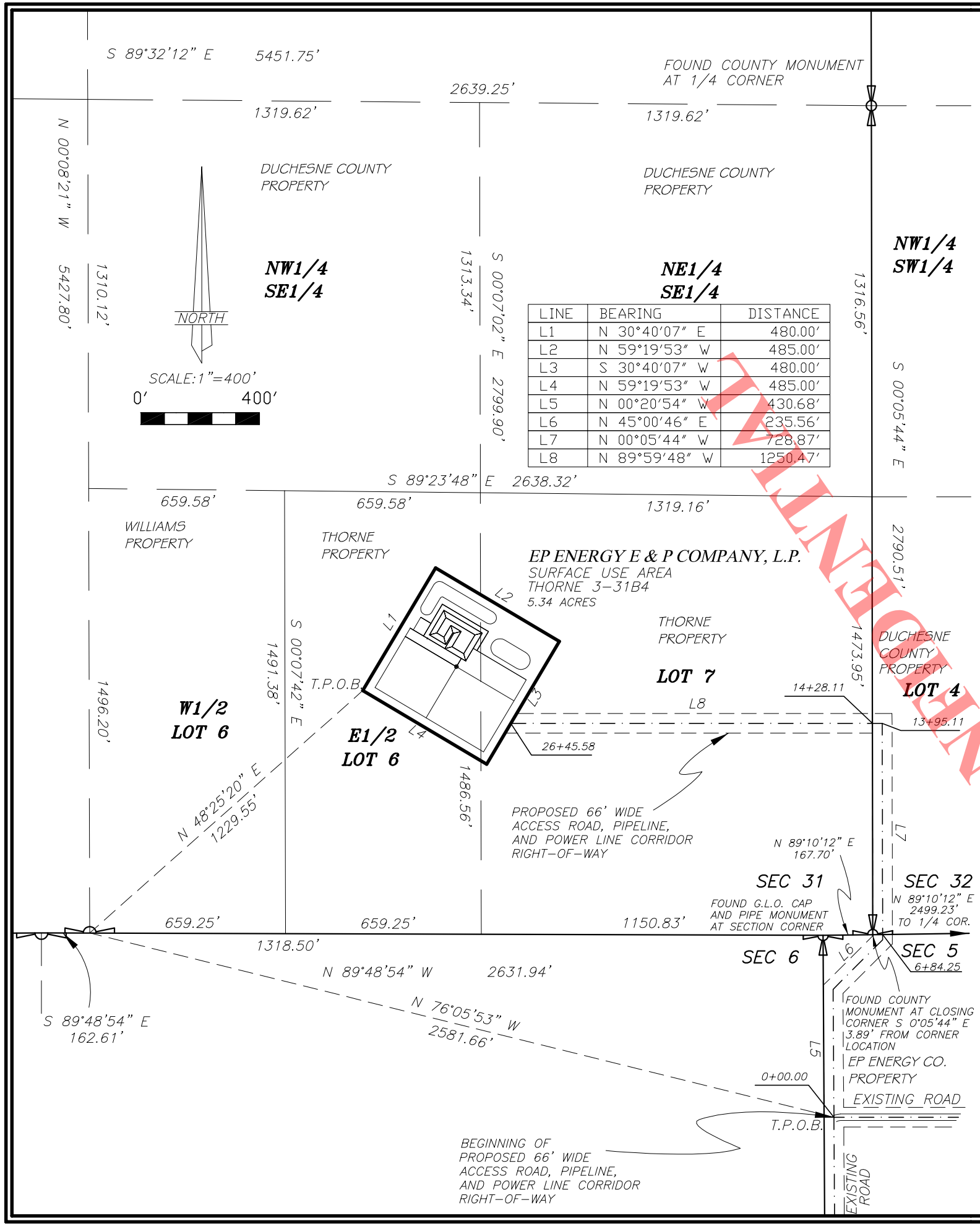

LINE	BEARING	DISTANCE
L1	N 30°40'07" E	480.00'
L2	N 59°19'53" W	485.00'
L3	S 30°40'07" W	480.00'
L4	N 59°19'53" W	485.00'
L5	N 00°20'54" W	430.68'
L6	N 45°00'46" E	235.56'
L7	N 00°05'44" W	728.87'
L8	N 89°59'48" W	1250.47'

LOCATION USE AREA, PIPELINE, AND POWER LINE
CORRIDOR RIGHT-OF-WAY SURVEY FOR

EP ENERGY E&P COMPANY, L.P.

THORNE 3-31B4

E1/2 LOT 6 AND LOT 7 OF SECTION 31
LOT 4 OF SECTION 32
TOWNSHIP 2 SOUTH, RANGE 4 WEST, U.S.B.&M.
NW1/4 OF THE NW1/4 OF SECTION 5
TOWNSHIP 3 SOUTH, RANGE 4 WEST, U.S.B.&M.
DUCHESNE COUNTY, UTAH

AREA USE BOUNDARY DESCRIPTION

Commencing at the SW Corner of Lot 6, which is the South 1/4 Corner of Section 31, Township 2 South, Range 4 West of the Uintah Special Base and Meridian;
Thence North 48°25'20" East 1229.55 feet to the TRUE POINT OF BEGINNING;
Thence North 30°40'07" East 480.00 feet;
Thence South 59°19'53" East 485.00 feet;
Thence South 30°40'07" West 480.00 feet;
Thence North 59°19'53" West 485.00 feet to the TRUE POINT OF BEGINNING, containing 5.34 acres.

ACCESS ROAD, PIPELINE, AND POWER LINE CORRIDOR RIGHT-OF-WAY DESCRIPTION

A 66 feet wide access road, pipeline, and power line right-of-way over portions of Section 31, Township 2 South, Range 4 West and Section 5, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which being described as follows;
Commencing at the NW Corner of the NW1/4 of said Section 5;
Thence South 00°20'54" East 612.32 feet along the West line of said NW1/4;
Thence North 89°59'56" East 33.00 feet to the TRUE POINT OF BEGINNING, said point being the centerline of an existing road to the East and South;
Thence North 00°20'54" West 430.68 feet parallel with said West line;
Thence North 45°00'46" East 235.56 feet;
Thence North 00°05'44" West 728.87 feet parallel with the West line of Lot 4 of Section 32 of said Township 3 South, Range 4 West;
Thence North 89°59'48" West 1250.47 feet to the East side of the EP Energy L&P Company Thorne 3-31B4 well location use boundary. Said right-of-way being 2645.58 feet in length, with the sidelines being shortened of elongated to intersect said use boundary and existing road line.

SURVEYOR'S CERTIFICATE

This is to certify that this plat was prepared from the field notes and electronic data collector files of an actual survey made by me, or under my personal supervision, of the use area and access road, pipeline, and power line right-of-way shown hereon, and that the monuments indicated were found or set during said survey, and that this plat accurately represents said survey to the best of my knowledge.

PROFESSIONAL LAND SURVEYOR
No. 148951
JERRY D. ALLRED
25 SEP '12
STATE OF UTAH

Jerry D. Allred, Professional Land Surveyor, Certificate 148951 (Utah)

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT A CONTROL POINT (SECTION CORNER) LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

25 SEP 2012 01-128-318

JERRY D. ALLRED AND ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

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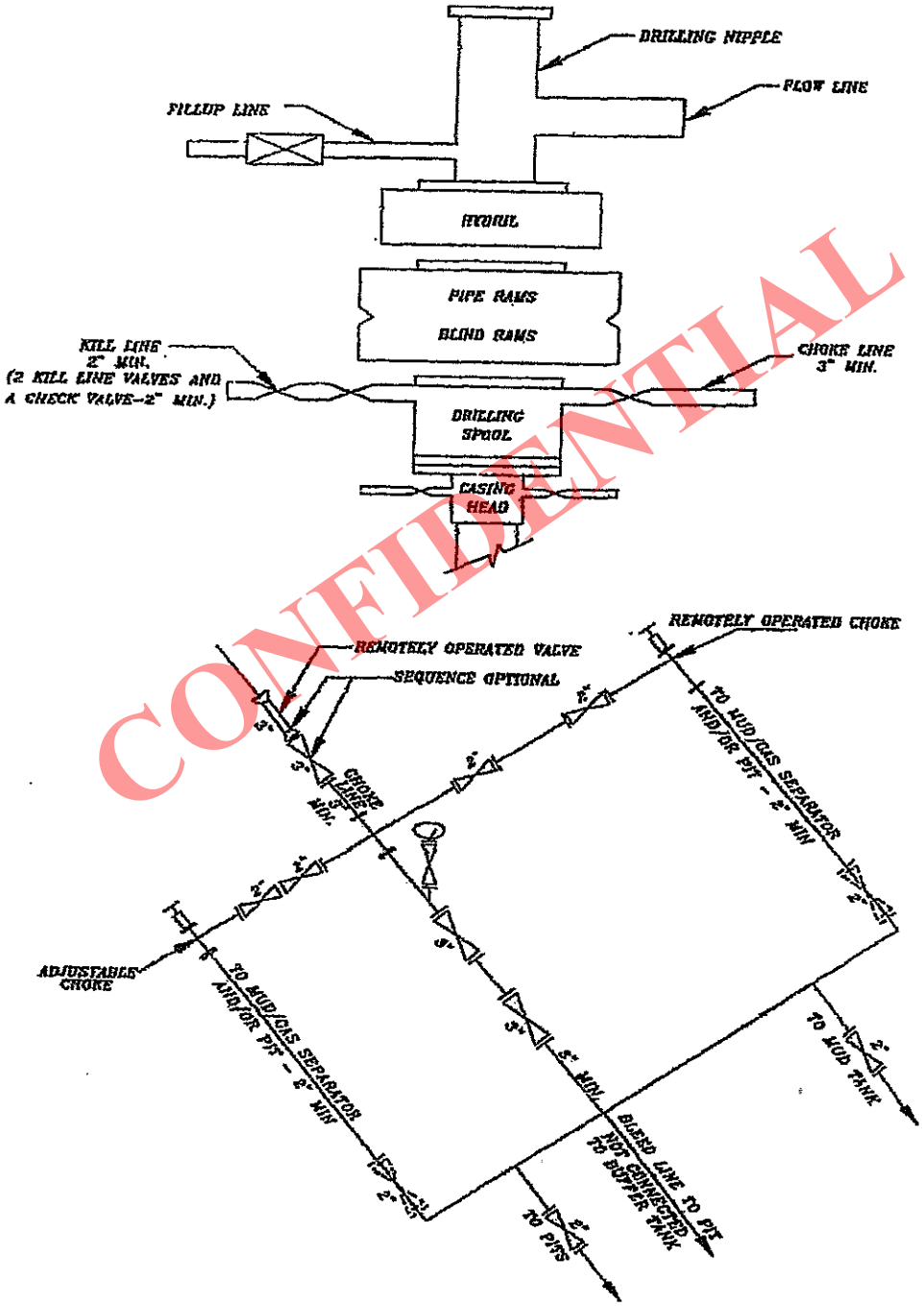
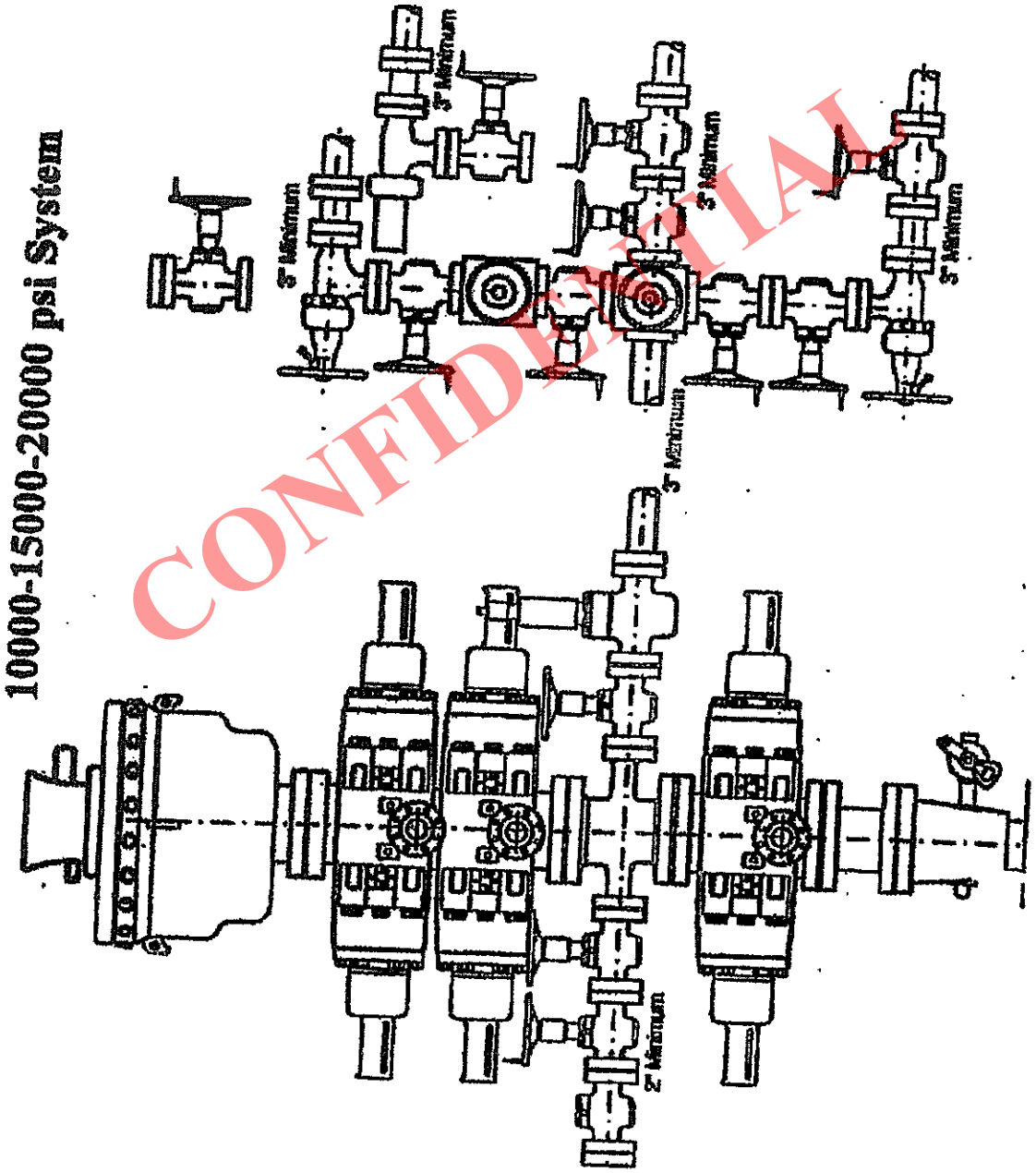
API Well Number: 43013520860000

5M BOP STACK and CHOKE MANIFOLD SYSTEM



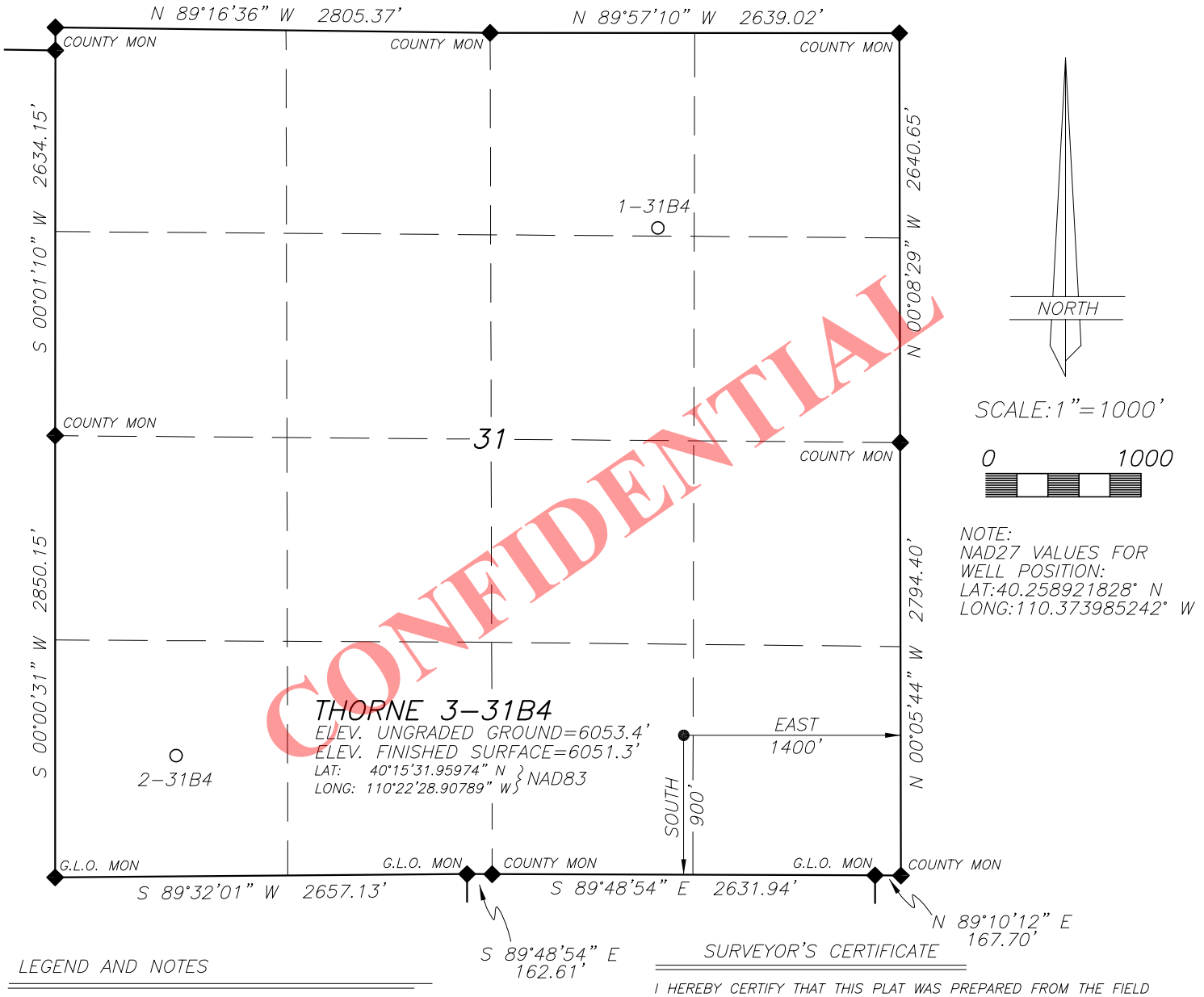


EP ENERGY E & P COMPANY, L.P.

WELL LOCATION

THORNE 3-31B4

LOCATED IN LOT 6 OF
SECTION 31, T2S, R4W, U.S.B.&M.
DUCHESNE COUNTY, UTAH



NOTE:
NAD27 VALUES FOR
WELL POSITION:
LAT:40.258921828° N
LONG:110.373985242° W

LEGEND AND NOTES

◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY

THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.

PROFESSIONAL LAND SURVEYOR
No. 148951
JERRY D. ALLRED
5 OCT '12
STATE OF UTAH

Jerry D. Allred

JERRY D. ALLRED, PROFESSIONAL LAND SURVEYOR,
CERTIFICATE NO. 148951 (UTAH)

5 OCT 2012 01-128-318

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS
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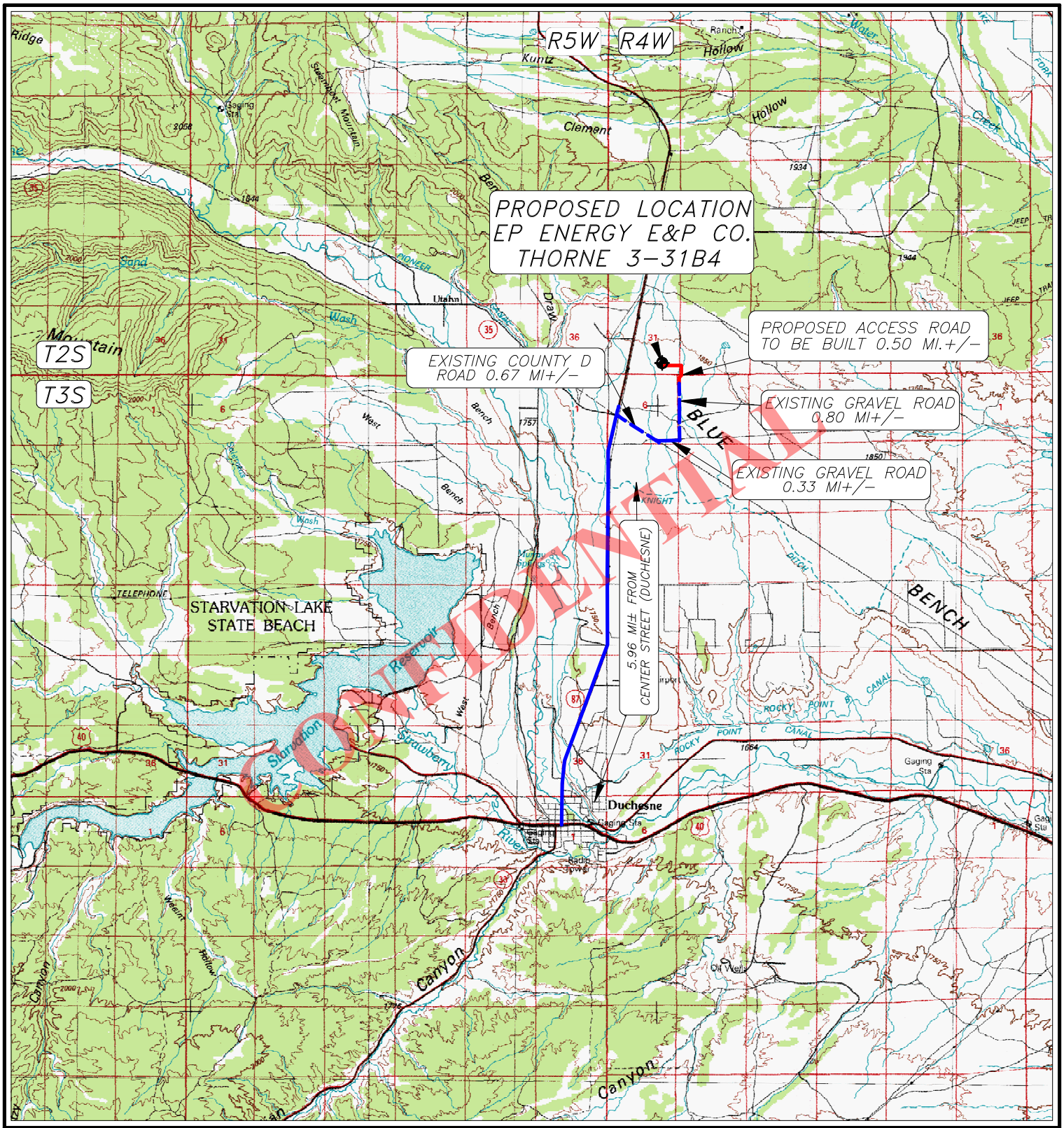

LEGEND:

◆ PROPOSED WELL LOCATION

NORTH

EP ENERGY E & P COMPANY, L.P.

THORNE 3-31B4

SECTION 31, T2S, R4W, U.S.B.&M.

900' FSL 1400' FEL

01-128-318

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(435) 738-5352

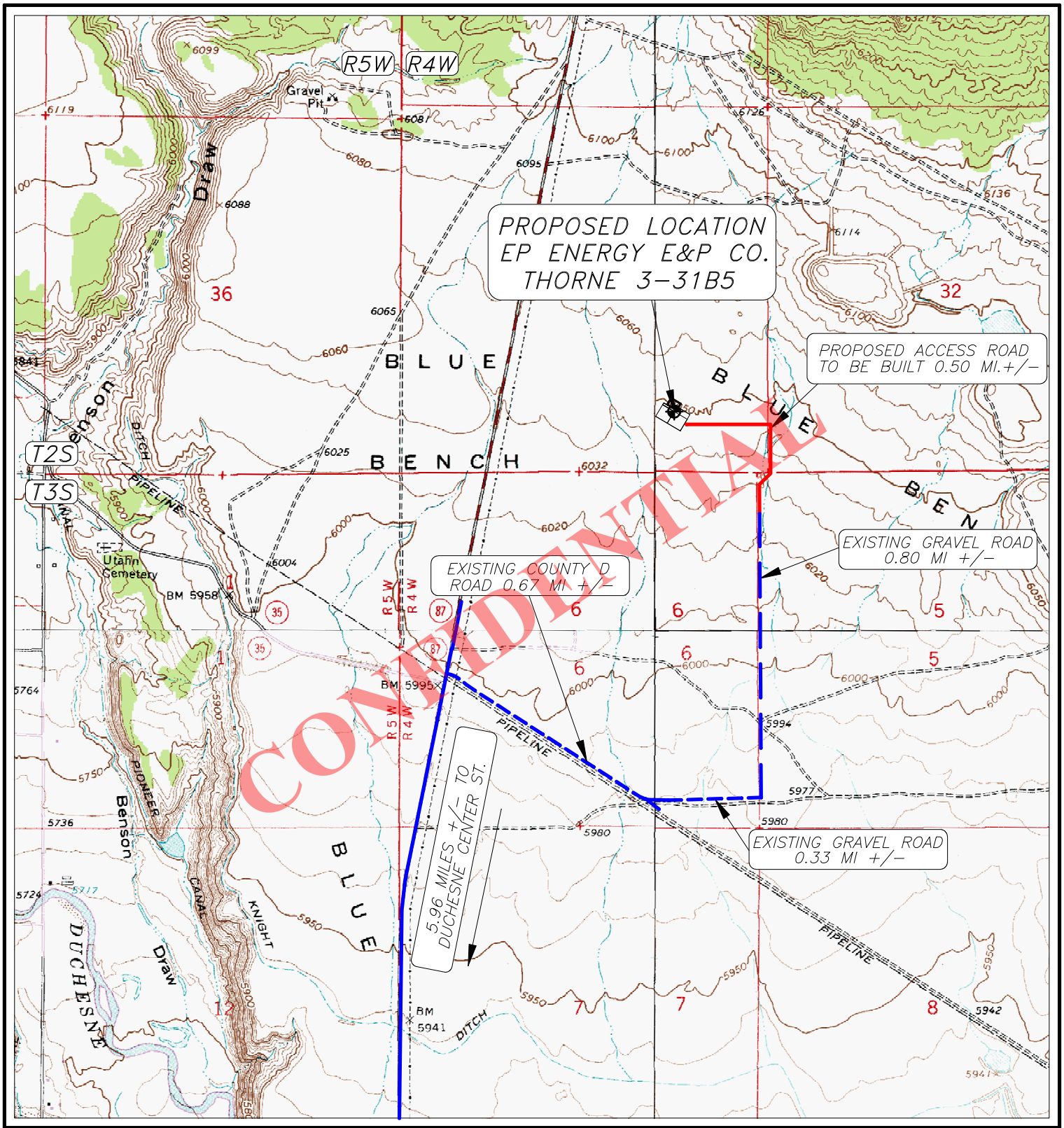
TOPOGRAPHIC MAP "A"

SCALE; 1"=10,000'

25 SEP 2012

RECEIVED: March 09, 2013

API Well Number: 43013520860000



LEGEND:

- PROPOSED WELL LOCATION
- PROPOSED ACCESS ROAD
- EXISTING GRAVEL ROAD
- EXISTING PAVED ROAD

01-128-318

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

NORTH

EP ENERGY E & P COMPANY, L.P.

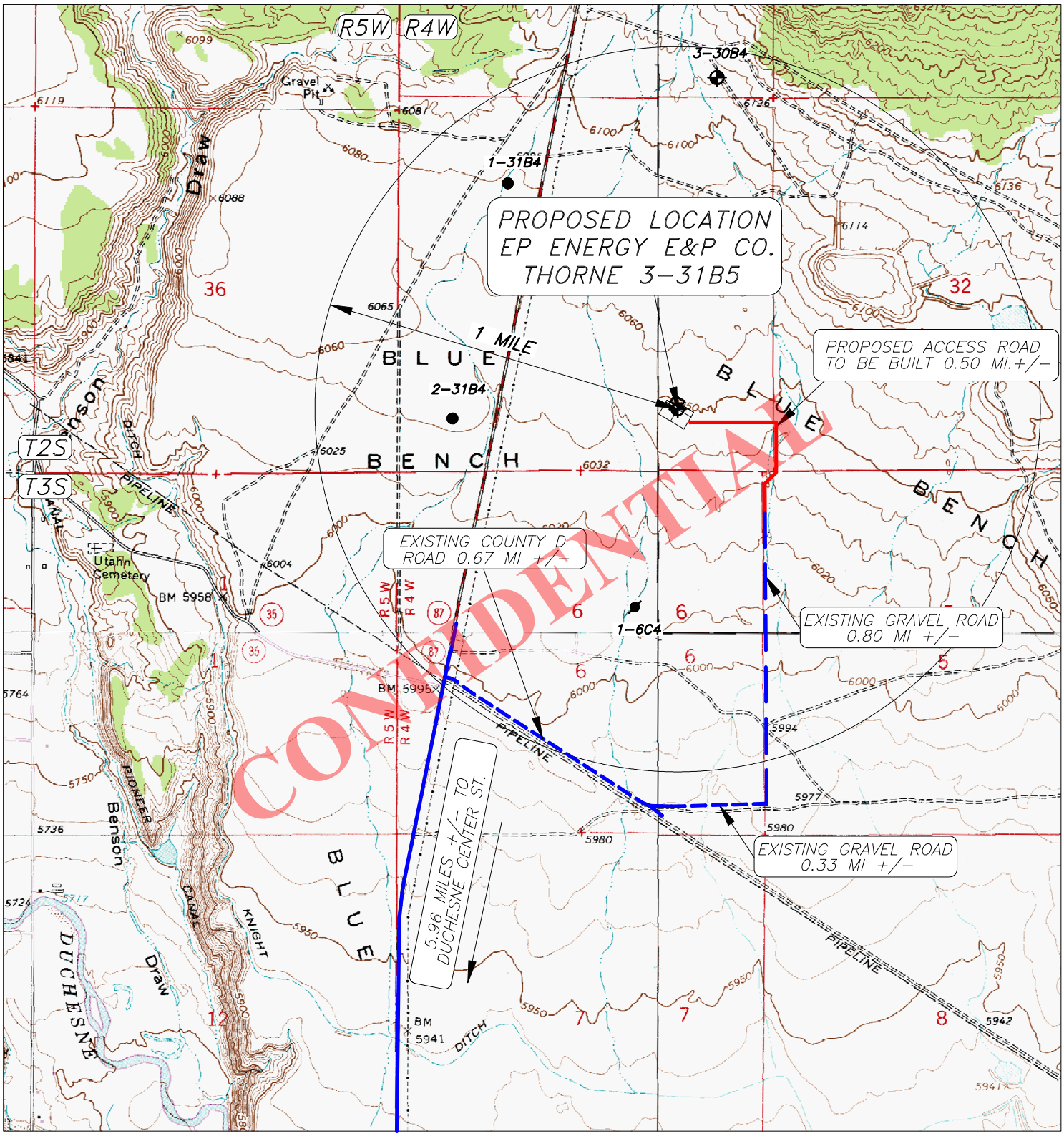
THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.
900' FSL 1400' FEL

TOPOGRAPHIC MAP "B"

SCALE; 1"=2000'
25 SEP 2012

RECEIVED: March 09, 2013

API Well Number: 43013520860000



LEGEND:

- PROPOSED WELL LOCATION
- OTHER WELLS AS LOCATED FROM SUPPLIED MAP

01-128-318

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

NORTH

EP ENERGY E & P COMPANY, L.P.

THORNE 3-31B4
SECTION 31, T2S, R4W, U.S.B.&M.
900' FSL 1400' FEL

TOPOGRAPHIC MAP "C"

SCALE; 1"=2000'
25 SEP 2012

RECEIVED: March 09, 2013

AFFIDAVIT OF DAMAGE SETTLEMENT AND RELEASE

Byron Moos personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Byron Moos. I am over the age of 21 and am an Independent Oil and Gas Landman under contract with Transcontinent Oil Company acting as agent for EP Energy E&P Company, L.P., whose address is 1001 Louisiana Street, Houston, Texas 77002 ("EP Energy").

2. EP Energy is the operator of the proposed Thorne 3-31B4 well ("the Well") to be located on the East ½ of Lot 6 and on Lot 7 of Section 31, Township 2 South, Range 4 West, USM, Duchesne County, Utah (the "Drill site Location"). The surface owner of the Drill site Location is Richard Thorne, whose address is 21 East Washington Street, Villa Park, IL 60181-3019. The telephone contact number for Richard Thorne is (708) 203-5775.

3. EP Energy and the Surface Owner have entered into a Damage Settlement and Release Agreement dated March 1, 2013 to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of operations associated with the drilling, completion and producing the Well.

FURTHER AFFIANT SAYETH NOT.

Byron Moos

ACKNOWLEDGMENT

STATE OF UTAH §
§
COUNTY OF DUCHESNE §

This instrument was acknowledged before me on this the 4th day of March, 2013 by Byron Moos as an Independent Landman acting as agent for EP ENERGY E&P COMPANY, L.P on behalf of said partnership and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.

Notary Public in and for the State of Utah

Notary Public
BRADEN EMORY OAKS
Commission #610423
My Commission Expires
August 4, 2015
State of Utah

Application for Permit to Drill – State DOGM
Thorne 3-31B4
Duchesne County, Utah

EP Energy E&P Company, L.P.

Related Surface Information

1. **Current Surface Use:**
   - Livestock Grazing and Oil and Gas Production.

2. **Proposed Surface Disturbance:**
   - The road will be crown and ditch. Water wings will be constructed on the access road as needed.
   - The topsoil will be windrowed and re-spread in the borrow area.
   - New road to be constructed will be approximately .50 miles in length and 66 feet wide.
   - All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3. **Location Of Existing Wells:**
   - Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

4. **Location And Type Of Drilling Water Supply:**
   - Drilling water: Duchesne City Water

5. **Existing/Proposed Facilities For Productive Well:**
   - There are no existing facilities that will be utilized for this well.
   - A pipeline corridor .50 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
   - Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

6. **Construction Materials:**
   - Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

7. **Methods For Handling Waste Disposal:**
   - The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be place in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
   - Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
   - Sewage will be handled in Portable Toilets.
   - Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a later date.
   - Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

8. **Ancillary Facilities:**
   - There will be no ancillary facilities associated with this project.

RECEIVED: March 09, 2013

9. **Surface Reclamation Plans:**

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.

1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.

- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.

1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
2. Landowner will be contacted for rehabilitation requirements.

10. **Surface Ownership:**

Richard Thorne
21 East Washington Street
Villa Park, IL 60181-3019
708-203-5775

Other Information:

- The surface soil consists of clay, and silt.
- Flora – vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna – antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses – Livestock grazing and mineral exploration and production.

- **Operator and Contact Persons:**

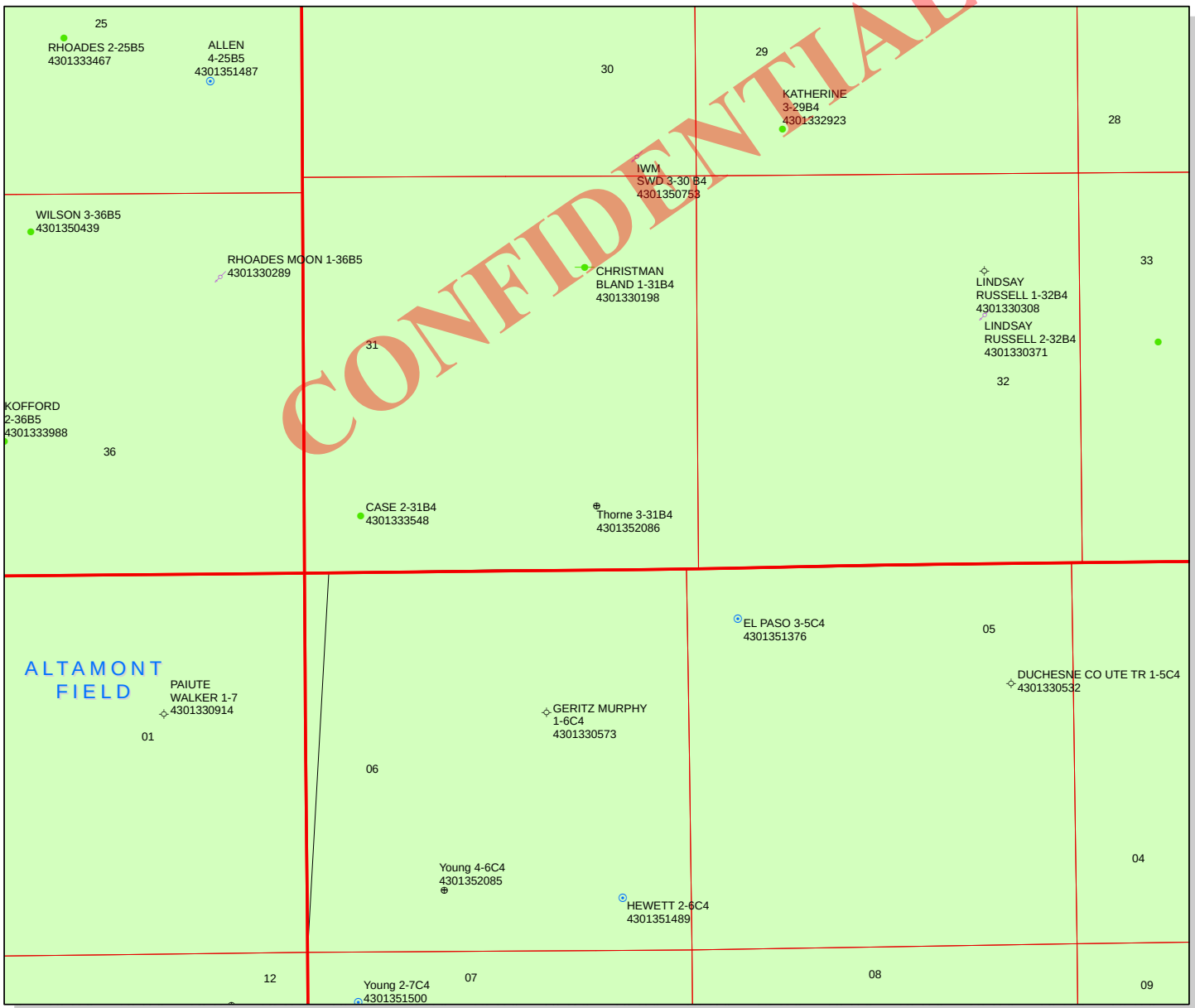
Construction and Reclamation:
EP Energy E&P Company, L.P.
Wayne Garner
PO Box 410
Altamont, Utah 84001
435-454-3394 – Office
435-823-1490 – Cell

Regarding This APD
EP Energy E&P Company, L.P.
Maria S. Gomez
1001 Louisiana, Rm 2730D
Houston, Texas 77002
713-997-5038 – Office

Drilling
EP Energy E&P Company, L.P.
Joe Cawthorn – Drilling Engineer
1001 Louisiana, Rm 2523B
Houston, Texas 77002
713-997-5929 – office
832-465-2882 – Cell

RECEIVED: March 09, 2013

API Well Number: 43013520860000



API Number: 4301352086

Well Name: Thorne 3-31B4

Township T02.0S Range R04.0W Section 31

Meridian: UBM

Operator: EP ENERGY E&P COMPANY, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

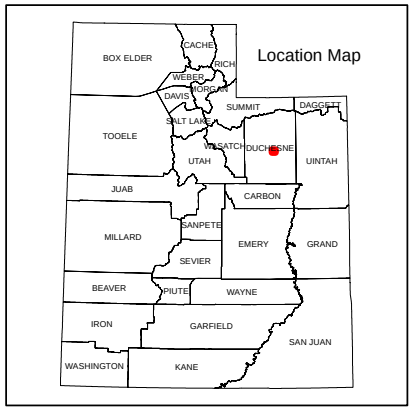
STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS

- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED



1,750 875 0 1,750 Feet

1:17,106

RECEIVED: March 15, 2013

API Well Number: 43013520860000

BOPE REVIEW EP ENERGY E&P COMPANY, L.P. Thorne 3-31B4 43013520860000

Well Name	EP ENERGY E&P COMPANY, L.P. Thorne 3-31B4 43013520860000			
String	Cond	Surf	I1	L1
Casing Size(")	13.375	9.625	7.000	5.000
Setting Depth (TVD)	800	4000	9800	12600
Previous Shoe Setting Depth (TVD)	0	800	4000	9800
Max Mud Weight (ppg)	8.8	9.5	10.8	13.5
BOPE Proposed (psi)	1000	5000	5000	10000
Casing Internal Yield (psi)	2730	5750	11220	12410
Operators Max Anticipated Pressure (psi)	8845			13.5

Calculations	Cond String	13.375	"	
Max BHP (psi)	.052*Setting Depth*MW=	366		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	270	YES	4.5" by 20.0" rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	190	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	190	NO	OK
Required Casing/BOPE Test Pressure=		800	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi	*Assumes 1psi/ft frac gradient

Calculations	Surf String	9.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	1976		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1496	YES	4.5 x 13 3/8
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1096	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1272	NO	OK
Required Casing/BOPE Test Pressure=		4000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		800	psi	*Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	5504		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4328	YES	5M BOP stack, 5M Annular, 5M kill lines,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3348	YES	choke manifold
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4228	NO	OK
Required Casing/BOPE Test Pressure=		7854	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		4000	psi	*Assumes 1psi/ft frac gradient

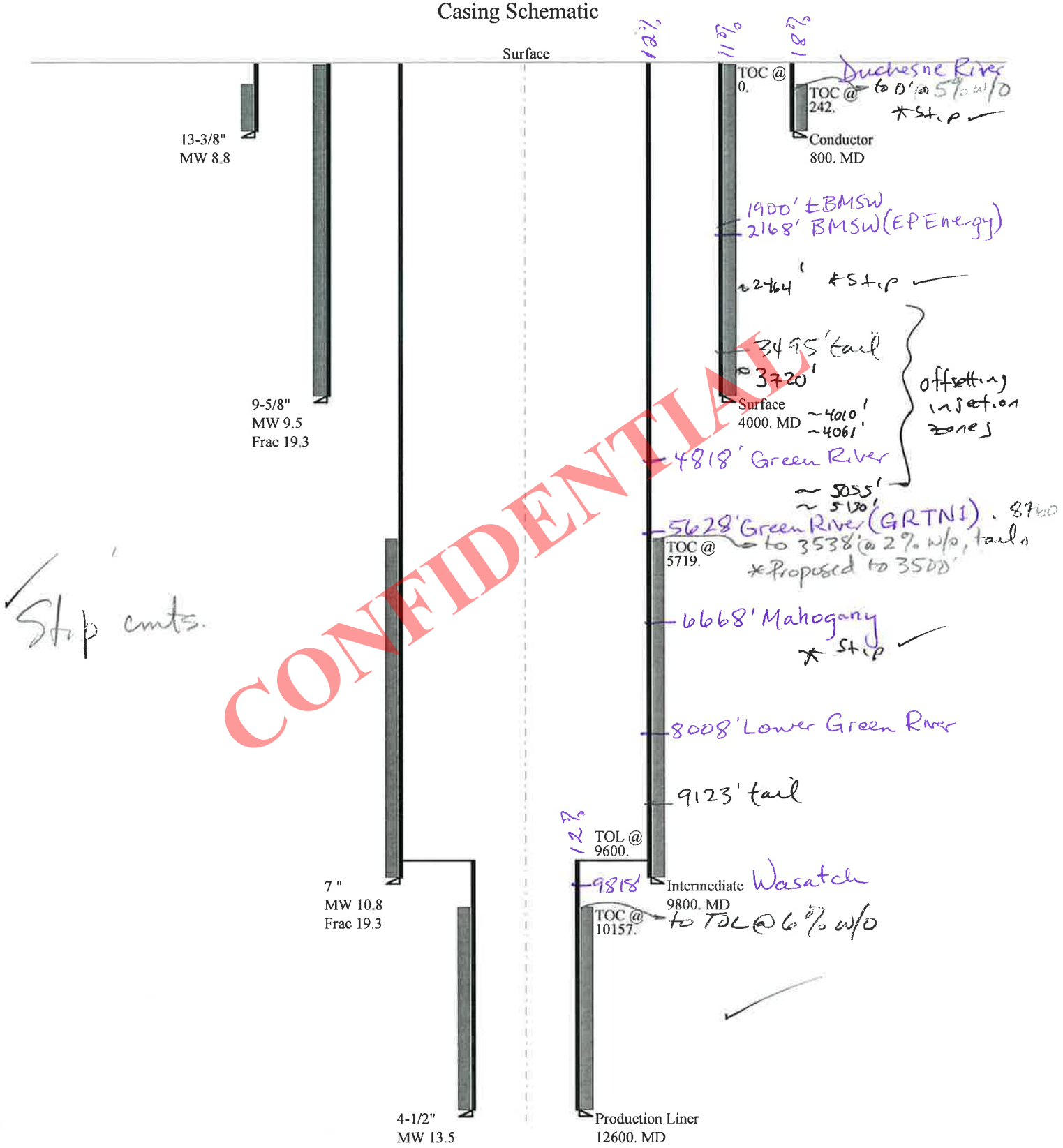
Calculations	L1 String	5.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	8845		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	7333	YES	10M BOE w/rotating head, 5M annular, blind
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	6073	YES	rams & mud cross
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	8229	YES	OK
Required Casing/BOPE Test Pressure=		8687	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		9800	psi	*Assumes 1psi/ft frac gradient

RECEIVED: April 30, 2013

API Well Number: 43013520860000

43013520860000 Thorne 3-31B4

Casing Schematic



API Well Number: 43013520860000

Well name:	**43013520860000 Thorne 3-31B4**
Operator:	**EP ENERGY E&P COMPANY, L.P.**
String type:	Conductor
Project ID:	43-013-52086
Location:	DUCHESNE COUNTY

Design parameters:

Collapse
Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 270 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 366 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 696 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 85 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 242 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	800	13.375	54.50	J-55	ST&C	800	800	12.49	9926

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	366	1130	3.090	366	2730	7.46	43.6	514	11.79 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 24,2013
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 800 ft, a mud weight of 8.8 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**43013520860000 Thorne 3-31B4**
Operator:	**EP ENERGY E&P COMPANY, L.P.**
String type:	Surface
Project ID:	43-013-52086
Location:	DUCHESNE COUNTY

Design parameters:

Collapse

Mud weight: 9.500 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,120 psi

Internal gradient: 0.220 psi/ft

Calculated BHP 4,000 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.70 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on air weight.

Neutral point: 3,435 ft

Environment:

H2S considered? No

Surface temperature: 74 °F

Bottom hole temperature: 130 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 9,800 ft

Next mud weight: 10.800 ppg

Next setting BHP: 5,498 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 4,000 ft

Injection pressure: 4,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	4000	9.625	40.00	N-80	LT&C	4000	4000	8.75	50899

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1974	3090	1.565	4000	5750	1.44	160	737	4.61 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: April 24,2013
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 4000 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

API Well Number: 43013520860000

Well name:	**43013520860000 Thorne 3-31B4**
Operator:	**EP ENERGY E&P COMPANY, L.P.**
String type:	Intermediate
Project ID:	43-013-52086
Location:	DUCHESNE COUNTY

Design parameters:

Collapse
Mud weight: 10.800 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 6,064 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 8,220 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 8,198 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 211 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 5,719 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 12,600 ft
Next mud weight: 13.500 ppg
Next setting BHP: 8,836 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 9,800 ft
Injection pressure: 9,800 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9800	7	29.00	P-110	LT&C	9800	9800	6.059	110667

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5498	8530	1.551	8220	11220	1.36	284.2	797	2.80 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 24,2013
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9800 ft, a mud weight of 10.8 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

API Well Number: 43013520860000

Well name:	**43013520860000 Thorne 3-31B4**
Operator:	**EP ENERGY E&P COMPANY, L.P.**
String type:	Production Liner
Project ID:	43-013-52086
Location:	DUCHESNE COUNTY

Design parameters:

Collapse
Mud weight: 13.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 6,064 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 8,836 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 12,002 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 250 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 10,157 ft

Liner top: 9,600 ft
Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	3000	4.5	13.50	P-110	LT&C	12600	12600	3.795	16810

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	8836	10680	1.209	8836	12410	1.40	40.5	338	8.35 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 24,2013
Salt Lake City, Utah

Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 12600 ft, a mud weight of 13.5 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator EP ENERGY E&P COMPANY, L.P.
Well Name Thorne 3-31B4
API Number 43013520860000 **APD No** 7785 **Field/Unit** ALTAMONT
Location: 1/4,1/4 SWSE **Sec** 31 **Tw** 2.0S **Rng** 4.0W 900 FSL 1400 FEL
GPS Coord (UTM) **Surface Owner** Richard Thorne

Participants

Wayne Garner (E&P Energy); Dennis Ingram (DOGM)

Regional/Local Setting & Topography

The Thorne 3-31B4 well is proposed in northeastern Utah 5.96 miles north of Duchesne along Highway 87, then east along a gravel country road 1.0 mile, then north 1.3 miles on Blue Bench. The surface at the proposed well pad slopes gently to the south, having fine-grained blow sand for soils and greasewood/sagebrush vegetation at the surface. To the north, the elevation rises into broken, sandstone shelf habitat that is typically found along the northern surface of Blue Bench. The Duchesne County Landfill is located less than a mile to the northeast. A quarter mile to the west Highway 87 runs north/south, and further west Benson Draw drains the Talmage area to the south into the Duchesne River Basin.

Surface Use Plan

Current Surface Use
Wildlfe Habitat
Recreational

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.5	**Width** 342 **Length** 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Greasewood, sagebrush, bunch grass, rabbit brush, prickly pear cactus; potential elk, mule deer, coyote, rabbit, fox, prairie dog, badger, other smaller mammals, hawk, eagle and other birds native to region.

Soil Type and Characteristics

Reddish, fine-grained blow sand with some clays

Erosion Issues Y

Sedimentation Issues Y

Site Stability Issues N

RECEIVED: April 30, 2013

Drainage Diverson Required? N

Berm Required? Y

Erosion Sedimentation Control Required? N

Paleo Survey Run? N **Paleo Potental Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	High permeability	20
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
	Final Score	25 1 Sensitivity Level

Characteristics / Requirements

Reserve pit proposed north of pad in cut, measuring 150' long by 110' wide by 12' deep, and having prevailing winds from the west

Closed Loop Mud Required? **Liner Required?** Y **Liner Thickness** 20 **Pit Underlayment Required?**

Other Observations / Comments

Surface slopes to the south, soils are loose, reddish blow sands, Highway 87 a quarter mile west of site, county dump northeast of site, trash litters west side of surface, see photos

Dennis Ingram	4/3/2013
Evaluator	**Date / Time**

RECEIVED: April 30, 2013

Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
7785	43013520860000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPANY, L.P.		**Surface Owner-APD**	Richard Thorne	
Well Name	Thorne 3-31B4		**Unit**		
Field	ALTAMONT		**Type of Work**	DRILL	
Location	SWSE 31 2S 4W U 900 FSL 1400 FEL GPS Coord (UTM) 553169E 4456679N				

Geologic Statement of Basis

EP proposes to set 800 feet of conductor and 4,000 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,900 feet. A search of Division of Water Rights records indicates that there are 18 water wells within a 10,000 foot radius of the center of Section 31. Wells range between 83 and 500 feet in depth and are used for irrigation, stock watering, domestic, industrial, oil exploration and municipal. These wells probably produce from the Duchesne River Formation. The Duchesne River Formation is made up of sandstones with interbedded shales and is the most prominent fresh water aquifer in the area. The proposed casing and cement program should adequately protect ground water in this area.

Brad Hill — **APD Evaluator**

4/11/2013 — **Date / Time**

Surface Statement of Basis

A presite visit was scheduled for April 3, 2013 to take input and address issues regarding the permitting and construction of this well pad. Richard Thorne was shown as the landowner of record and therefore invited to the presite visit.

The surface at this site slopes gently to the south, having only 2.9 feet of cut along the northern border and 1.5 feet of fill on the southeastern corner. No drainage issues were found in the project area. Soils are fine-grained, reddish blow sand with greasewood and sagebrush making up most of the vegetation. The reserve pit is staked off the north side of the location, in cut, and will require a 20 mil synthetic liner to hold water. Topsoil stockpile shall be stored east of the reserve pit between corners 5 and 6. The location shall be bermed to prevent spills or leaks from leaving well pad. No other issues were noted at the presite meeting.

Dennis Ingram — **Onsite Evaluator**

4/3/2013 — **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: April 30, 2013

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 3/9/2013 **API NO. ASSIGNED:** 43013520860000

WELL NAME: Thorne 3-31B4

OPERATOR: EP ENERGY E&P COMPANY, L.P. (N3850) **PHONE NUMBER:** 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: SWSE 31 020S 040W **Permit Tech Review:** ☑

SURFACE: 0900 FSL 1400 FEL **Engineering Review:** ☑

BOTTOM: 0900 FSL 1400 FEL **Geology Review:** ☑

COUNTY: DUCHESNE

LATITUDE: 40.25889 **LONGITUDE:** -110.37476

UTM SURF EASTINGS: 553169.00 **NORTHINGS:** 4456679.00

FIELD NAME: ALTAMONT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee **PROPOSED PRODUCING FORMATION(S):** GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 4 - Fee **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE/FEE - 400JU0708
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Duchesne City
- ☐ **RDCC Review:**
- ☑ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit:

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 139-84

Effective Date: 12/31/2008

Siting: 4 Prod LGRRV-WSTC Wells

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhill
8 - Cement to Surface -- 2 strings - hmacdonald
12 - Cement Volume (3) - ddoucet

RECEIVED: April 30, 2013

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill
****

Well Name: Thorne 3-31B4
API Well Number: 43013520860000
Lease Number: Fee
Surface Owner: FEE (PRIVATE)
Approval Date: 4/30/2013

Issued to:
EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-84. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 13 3/8" and 9 5/8" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 7" casing string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 3500' MD as indicated in the submitted drilling plan.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

Approved By:

For John Rogers
Associate Director, Oil & Gas

CONFIDENTIAL

SWSE S-31 T02S R04W

Notice of Spudding of Well: Thorne 3-31B4

RLANDRIG008 <RLANDRIG008@epenergy.com> Wed, Aug 14, 2013 at 8:16 PM
To: Alexis Huefner <alexishuefner@utah.gov>, Carol Daniels <caroldaniels@utah.gov>, Dennis Ingram <dennisingram@utah.gov>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Gaydos, Tommy L" <Tommy.Gaydos@epenergy.com>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>

Aug. 14, 2013

This is notice of Spudding of the following well.

Well: Thorne 3-31 B4

API # 43013520860000

County: Duchesne

Rig: Bucket Rig #33 of Leon Ross Drilling bucket rig.

Spud in at 1:00 PM Aug. 13, 2013

RECEIVED
AUG 19 2013
DIV. OF OIL, GAS & MINING

Best Regards

Steven Murphy

Rig Site Supervisor

EP Energy

C: 435-823-1725

CONFIDENTIAL

5-31 T02S R04W

24 Hr Notice of Run'g & Cmt'g 7" Intermediate Casing on the Thorne 3-31B4 Test 11" 10 K BOPE 12 Hrs later.

RLANDRIG008 <RLANDRIG008@epenergy.com> Fri, Sep 13, 2013 at 7:45 PM
To: Alexis Huefner <alexishuefner@utah.gov>, Dennis Ingram <dennisingram@utah.gov>, Carol Daniels <caroldaniels@utah.gov>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Gaydos, Tommy L" <Tommy.Gaydos@epenergy.com>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>

Sept. 13, 2013

Well: Thorne 3-31B4

API # 43013520860000

County: Duchesne

Rig: Precision Drilling Rig #404

24 Hrs Notice for running and cementing of 7" Intermediate Casing 9,760' MD. Will be testing 11" 10 K BOPE 12 Hrs later.

Best Regards

Steven Murphy

Rig Site Supervisor

EP Energy

C: 435-823-1725

RECEIVED
SEP 13 2013
DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Thorne 3-31B4

2. NAME OF OPERATOR:
EP ENERGY E&P COMPANY, L.P.

9. API NUMBER:
43013520860000

3. ADDRESS OF OPERATOR:
1001 Louisiana , Houston, TX, 77002

PHONE NUMBER:
713 997-5038 Ext

9. FIELD and POOL or WILDCAT:
ALTAMONT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0900 FSL 1400 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 31 Township: 02.0S Range: 04.0W Meridian: U

COUNTY:
DUCHESNE

STATE:
UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 10/11/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Initial Completion

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please see attached procedure for details.

Approved by the Utah Division of Oil, Gas and Mining

Date: October 11, 2013

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Maria S. Gomez	713 997-5038	Principal Regulatory Analyst

SIGNATURE	DATE
N/A	10/11/2013

RECEIVED: Oct. 11, 2013

Thorne 3-31 B4
Initial Completion
43-013-52086

The following precautions will be taken until the RCA for the Conover is completed:

1. Review torque turning and running of the 7" and 5" liner of anomalies.
2. Test and chart casing for 30 minutes, noting pressure if any on surface casing.
3. Test all lubricators, valves and BOP's to working pressure.
4. Wellhead isolation tools will continue to be used to isolate the wellhead during the frac.
5. Monitor the surface casing during frac:
    a. Lay a flowline to the flow back tank and keep the valve open.
    b. This line will remain in place until a wire line set retrievable packer is in place isolating the 5" casing from the 7" after the frac.
6. 2 7/8" tubing will be run to isolate the 7" casing during the flow back of the well.
7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

Completion Information (Wasatch Formation)

Stage 1: RU WL unit with 10K lubricator and test to 10,000 psi with water. Perforations from ~12,436' – 12,105' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~150,000# PowerProp 20/40.

Stage 2: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~12,078'. Test CBP and casing to 8,500 psi. Perforations from ~12,069' – 11,746' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~150,000# PowerProp 20/40.

Stage 3: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~11,715'. Test CBP and casing to 8,500 psi. Perforations from ~11,706 – 11,409' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~155,000# PowerProp 20/40.

Stage 4: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~11,357'. Test CBP and casing to 8,500 psi. Perforations from ~11,347' – 11,118' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~150,000# PowerProp 20/40.

Stage 5: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,993'. Test CBP and casing to 8,500 psi. Perforations from ~11,083' – 10,795' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~155,000# PowerProp 20/40.

Stage 6: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,774'. Test CBP and casing to 8,500 psi. Perforations from ~10,764' – 10,486' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~155,000# PowerProp 20/40.

Stage 7: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,464'. Test CBP and casing to 8,500 psi. Perforations from ~10,456' – 10,189' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~160,000# PowerProp 20/40.

RECEIVED: Oct. 11, 2013

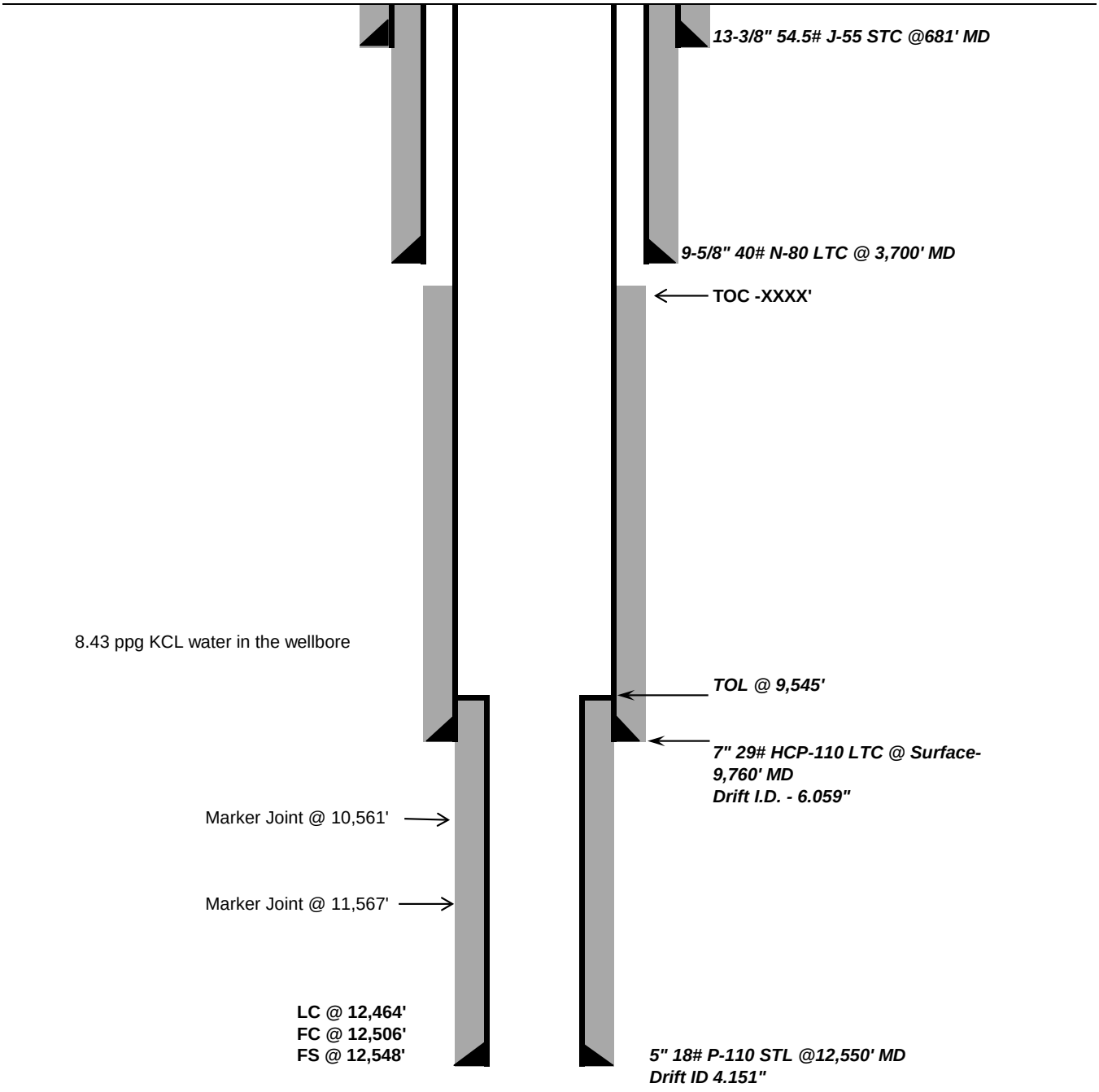
Stage 8: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,151'. Test CBP and casing to 8,500 psi. Perforations from ~10,139' – 9,873' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~165,000# PowerProp 20/40.

RECEIVED: Oct. 11, 2013

EP ENERGY

Current Wellbore Schematic

Company Name:	*EP Energy*	**Last Updated:**	***9/27/2013***
Well Name:	***Thorne 3-31 B4***	**By:**	*Robert Fondren*
Field, County, State:	*Altamont - Bluebell, Duchesne, Utah*	**TD:**	*12,550'*
Surface Location:	*Lat: 40˚ 15' 31.95974" N Long: 110˚ 22' 28.90789" W*	**BHL:**	
Producing Zone(s):	*Wasatch*	**Elevation:**	*6,051'*

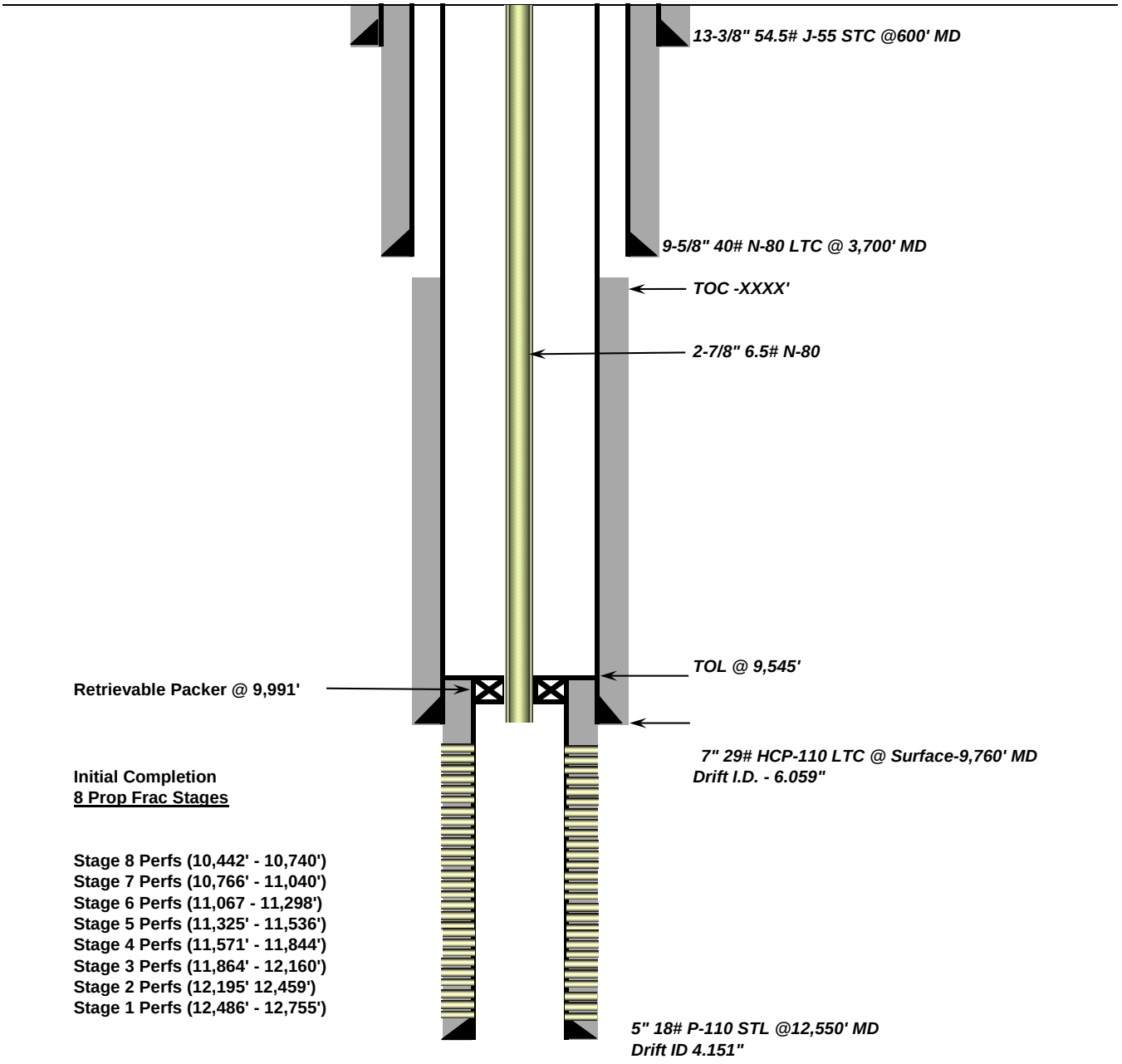


RECEIVED: Oct. 11, 2013

EP ENERGY

Initial Completion Wellbore Schematic

Company Name:	EP Energy	**Last Updated:**	8/23/2013
Well Name:	**Thorne 3-31 B4**	**By:**	Robert Fondren
Field, County, State:	Altamont - Bluebell, Duchesne, Utah	**TD:**	12,550'
Surface Location:	Lat: 40˚ 15' 31.95974" N Long: 110˚ 22' 28.90789" W	**BHL:**	
Producing Zone(s):	Wasatch	**Elevation:**	



RECEIVED: Oct. 11, 2013

API Well Number: 43013520860000

Directional survey not attached

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: Thorne 3-31B4

2. NAME OF OPERATOR: EP Energy E&P Company, L.P.

9. API NUMBER: 4301352086

3. ADDRESS OF OPERATOR: 1001 Louisiana CITY Houston STATE TX ZIP 77002

PHONE NUMBER: (713) 997-5038

10 FIELD AND POOL, OR WILDCAT: Altamont

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 900 FSL & 1400 FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW: 900 FSL & 1400 FEL
AT TOTAL DEPTH: 900 FSL & 1400 FEL

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 31 2S 4W U

12. COUNTY: Duchesne

13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED	READY TO PRODUCE	17. ELEVATIONS (DF, RKB, RT, GL):
8/27/2013	9/21/2013	10/17/2013	☐	☑	6051

18. TOTAL DEPTH:	19. PLUG BACK T.D.:	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET:
MD 12,550 TVD 12,543	MD TVD		MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Sonic, Gamma Ray, Resistivity & Neutron Density

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
17.5	13.375 J55	54.5	0	681		G 900	1,035	0	
12.25	9.625 N80	40	0	3,695		Prem 705	917	0	
8.75	7" P110	29	0	9,760		G 540	1,208	6630	
6.125	5 P110	18	9,504	12,550		Prem 225	331	~9504	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.875	9,427	9,411						

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Wasatch	9,781	12,436	9,775	12,429
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
12,105 12,436	.43	69	Open ☑ Squeezed ☐
11,726 12,069	.43	69	Open ☑ Squeezed ☐
11,382 11,706	.43	69	Open ☑ Squeezed ☐
11,117 11,346	.43	69	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. See attached for further information on #27 & #28.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
12105-12436	5000 gal 15% HCL acid, 3060# 100 Mesh, 150300# 20/40 Power Prop
11726-12069	5000 gal 15% HCL acid, 3000# 100 Mesh, 150080# 20/40 Power Prop
11382-11706	5000 gal 15% HCL acid, 3000# 100 Mesh, 155400# 20/40 Power Prop

29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: Producing

(5/2000) (CONTINUED ON BACK)

RECEIVED: Dec. 31, 2013

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
10/18/2013	10/29/2013	24		659	957	409	Flowing

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
16	2,345		45.70	1	1		659	957	409	Producing

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

Sold

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Upper Green River	4,865
				Middle Green River	6,556
				Lower Green River	7,999
				Wasatch	9,781

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Maria S. Gomez TITLE Principal Regulatory Analyst

SIGNATURE Maria S. Gomez DATE

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

RECEIVED: Dec. 31, 2013

Attachment to Well Completion Report

Form 8 Dated December 20, 2013

Well Name: Thorne 3-31B4

Items #27 and #28 Continued

27. Perforation Record

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
10793'-11082'	.43	69	Open
10484'-10762'	.43	69	Open
9869'-10135'	.43	69	Open

28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
11117'-11346'	5000 gal 15% HCL acid, 3000# 100 Mesh, 150480# 20/40 Power Prop
10793'-11082'	5000 gal 15% HCL acid, 3000# 100 Mesh, 155140# 20/40 Power Prop
10484'-10762'	5000 gal 15% HCL acid, 3000# 100 Mesh, 160000# 20/40 Power Prop
10186'-10453'	5000 gal 15% HCL acid, 3500# 100 Mesh, 160300# 20/40 Tempered LC
9869'-10135'	5000 gal 15% HCL acid, 3500# 100 Mesh, 164740# 20/40 Tempered LC

RECEIVED: Dec. 31, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Thorne 3-31B4

2. NAME OF OPERATOR:
EP ENERGY E&P COMPANY, L.P.

9. API NUMBER:
43013520860000

3. ADDRESS OF OPERATOR:
1001 Louisiana , Houston, TX, 77002

PHONE NUMBER:
713 997-5038 Ext

9. FIELD and POOL or WILDCAT:
ALTAMONT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0900 FSL 1400 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 31 Township: 02.0S Range: 04.0W Meridian: U

COUNTY:
DUCHESNE

STATE:
UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 5/1/2015	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: See Below

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Downsize, deepen, & convert to corod.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 18, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Maria S. Gomez	713 997-5038	Principal Regulatory Analyst
SIGNATURE		**DATE**
N/A		6/16/2015

RECEIVED: Jun. 16, 2015

CENTRAL DIVISION

ALTAMONT FIELD
THORNE 3-31B4
THORNE 3-31B4
WORKOVER LAND

Operation Summary Report

RECEIVED: Jun. 16, 2015

1 General

1.1 Customer Information

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	THORNE 3-31B4		
Project	ALTAMONT FIELD	**Site**	THORNE 3-31B4
Rig Name/No.		**Event**	WORKOVER LAND
Start date	4/27/2015	**End date**	5/2/2015
Spud Date/Time	8/30/2013	**UWI**	THORNE 3-31B4
Active datum	KB @6,068.3ft (above Mean Sea Level)		
Afe No./Description	164495/53676 / THORNE 3-31B4		

2 Summary

2.1 Operation Summary

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
4/28/2015	6:00	7:00	1.00	MIRU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; MOVING RIG
	7:00	9:30	2.50	MIRU	01		P		RAOD RIG FROM THE 8-20C4 TO LOCATION SLIDE ROTO FLEX MIRU PUMP 60 BBLS OF HOT 2% KCL WATER DOWN ANNULAS
	9:30	12:00	2.50	PRDHEQ	39		P		L/D POLISH ROD ATTEMPT TO WORK PUMP OFF SEAT FAILED PULL ROD STUCK R/U BACK OFF TOOL BACK OFF RODS
	12:00	14:00	2.00	PRDHEQ	39		P		TOH L/D 103-1" RODS 20-7/8" RODS
	14:00	14:45	0.75	WLWORK	21		P		HSM UPDATE JSA TOPIC; WIRELINE OPERATIONS...MIRU WIRELINE TIH PERFORATE TBG AT 3067' TOH R/D WIRELINE FLUSH TBG w 20 BBLS OF 2% KCL WATER
	14:45	15:37	0.87	WOR	16		P		HSM UPDATE JSA TOPIC; N/D N/U BOPE; N/D WELL HEAD N/U BOPE RELEASE 7" TAC
	15:37	18:30	2.88	PRDHEQ	39		P		TOH w 96-JTS OF 2 7/8" TBG TO THE TOP OF RODS MAKE BACK OFF CONTINUE L/D RODS 27-7/8" RODS SECURE WELL TIW VALVE w NIGHT CAP BOPE CLOSED AND LOCKED 7 CSG VALVE OPEN TO SALES
4/29/2015	6:00	7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCAITON HSM WRITE AND REVIEW JSA TOPIC; STRIPPING PRODUCTION
	7:00	16:00	9.00	WOR	39		P		CONTINUE STRIPPING PRODUCTION TTL OF 265-JTS OF 2 7/8" TBG TTL OF 103-1" RODS 111-7/8" RODS 117-3/4" RODS 17-1 1/2" K BARS L/D BHA CLEAN WORK AREA
	16:00	17:00	1.00	SL	32		P		P/U 1" JT OF 2 7/8" TBG MIRU SLICK LINE TRUCK PBTD 12464' TIH TAG AT 12453' SLMD TOH R/D SLICK LINE TRUCK
	17:00	18:30	1.50	PRDHEQ	39		P		P/U 5 3/4" OPEN NO-GO TIH w 205 JTS OF 2 7/8" TBG SECURE WELL TIW VALVE w NIGHT CAP CLOSE PIPE RAMS AND LOCK 7" CSG OPEN TO SALES SDFN EOT 6692'
4/30/2015	6:00	7:00	1.00	PRDHEQ	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; TRIPPING TBG
	7:00	7:40	0.67	PRDHEQ	39		P		CSIP 100 PSI TSIP 100 PSI BLEED WELL OFF FINISH TIH w 60-JTS OF 2 7/8" TBG
	7:40	8:30	0.83	PRDHEQ	06		P		FLUSH TBG w 60 BBLS OF HOT 2% KCL WATER
	8:30	13:30	5.00	PRDHEQ	39		P		MIRU SCANNING EQUIPMENT SCAN 267-JTS OF 2 7/8" TBG L/D 69 RED 25 BLUE STAND BACK 173 YELLOW BAND RDMO SCANNING EQUIPMENT

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	13:30	18:30	5.00	PRDHEQ	39		P		TALLY AND P/U 2 3/8" BULL PLUG 2-JTS OF 2 3/8" TBG 2303 DE-SANDER 2' TBG SUB 2 3/8" PSN 4-JTS OF 2 3/8" TBG 5" TAC 45-JTS OF 2 3/8" TBG CHANGE HANDLING TOOLS R/U HYDROTEST TOOLS TALLY AND TEST 173-JTS OF 2 7/8" YELLOW BAND TBG R/D HYDROTEST TOOLS SECURE WELL TIW VALVE w NIGHT CAP CLOSE PIPE RAMS AND LOCK 7" CSG OPEN TO SALES SDFN EOT 7324'
5/1/2015	6:00	7:00	1.00	PRDHEQ	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; PICKING UP TBG & HAND PLACEMENT
	7:00	11:00	4.00	PRDHEQ	39		P		CSIP 100 PSI TSIP 100 PSI BLEED OFF WELL CONTINUE TIH TALLY & P/U 115-JTS OF NEW 2 7/8" TBG SET 5" TAC AT 10864' PSN AT 10994' EOT 11081' LAND TBG R/D FLOOR N/D BOPE REMOVE LANDING SUB INSTALL B-FLANGE LAND TAC IN TENTION 20K N/U WELL HEAD SECURE WELL w VALVE AND NIGHT CAP IN TBG 7" CSG OPEN TO SALES
	11:00	12:00	1.00	RDMO	02		P		RDMO
	12:00	15:00	3.00	INARTLT	03		N		WAIT ON CO-ROD UNIT TO FINISH INSTALL ON THE MOON 3-30C4
	15:00	19:00	4.00	INARTLT	03		P		HSM WRITE AND REVIEW JSA TOPIC; CO-ROD OPERATIONS MIRU CO-ROD UNIT P/U 2" X 1 1/2" X 38' 60 RING PA PUMP TIH w 1ST REAL OF CO-ROD 7800' WELD ROD SECURE WELL CLOSE CO-ROD BOPE CLOSE TOP AND BTM RADIGANS WELL OPEN TO SALES SDFN
5/2/2015	6:00	7:00	1.00	PRDHEQ	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; CO-ROD OPERATIONS
	7:00	10:39	3.65	PRDHEQ	39		P		CSIP 100 TSIP 100 BLEED OFF WELL CONTINUE TIH w CO-ROD SPACE OUT CUT AND WELD PIN SPACE w 2' 4' 6' 8' X 1" PONY ROD FILL TBG w 35 BBLS OF 2% KCL TEST AND STROKE TEST TO 1000 PSI GOOD
	10:39	12:30	1.85	PRDHEQ	39		P		RDMO SLIDE UNIT TURN WELL OVER TO PRODUCTION

Table of Contents

RECEIVED: Jun. 16, 2015

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: Thorne 3-31B4

2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.

9. API NUMBER: 43013520860000

3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002

PHONE NUMBER: 713 997-5038 Ext

9. FIELD and POOL or WILDCAT: ALTAMONT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0900 FSL 1400 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 31 Township: 02.0S Range: 04.0W Meridian: U

COUNTY: DUCHESNE

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 10/27/2015	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	✓ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EP plans to recomplete to the Wasatch/LGR. See attached for details.

Approved by the
Utah Division of
Oil, Gas and Mining
October 19, 2015

Date:

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Maria S. Gomez	713 997-5038	Principal Regulatory Analyst
SIGNATURE		**DATE**
N/A		10/19/2015

RECEIVED: Oct. 19, 2015

Thorne 3-31B4 Recom Summary Procedure

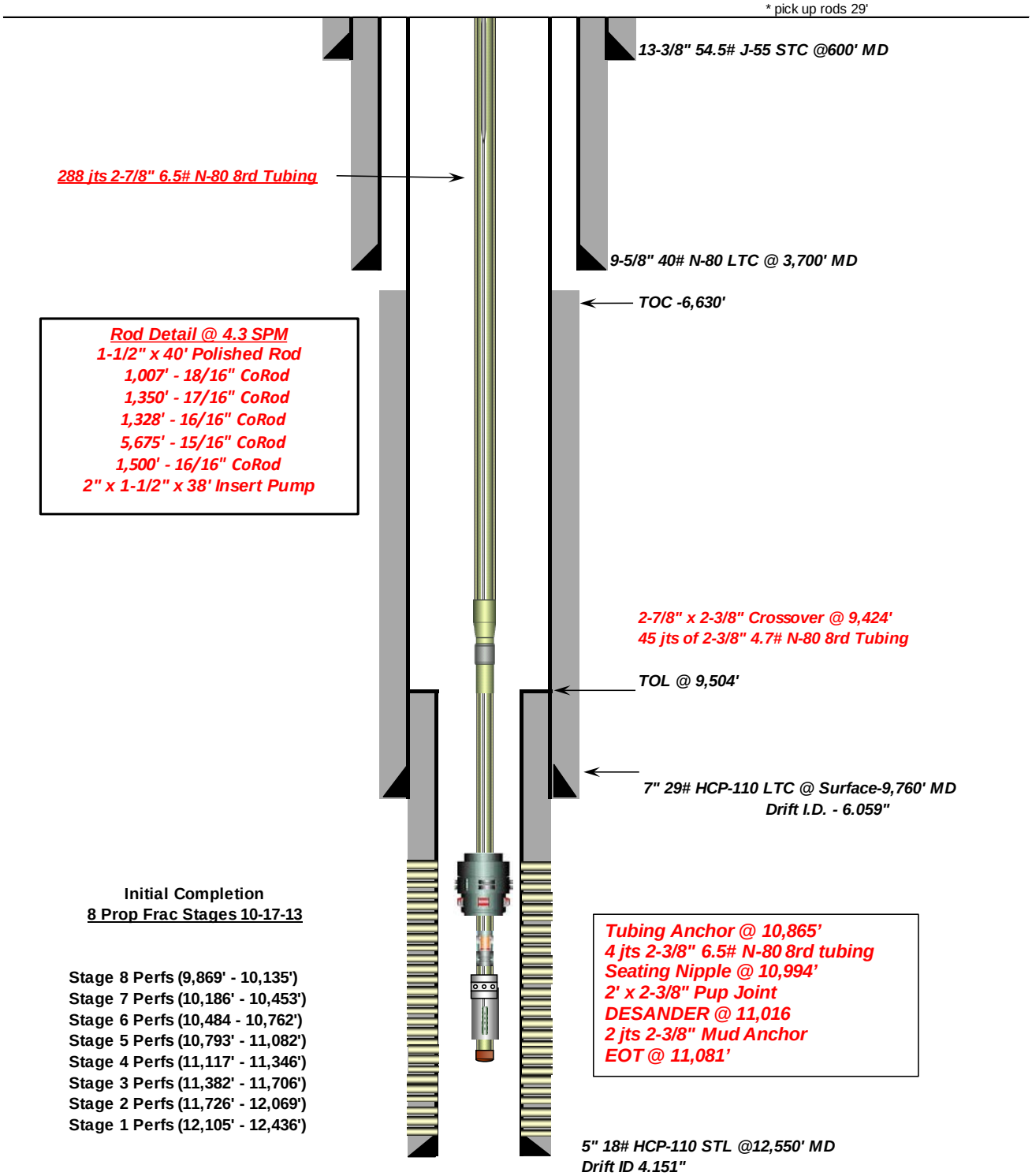
- POOH with rods, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Set two CBPs for 5" 18# casing @ 9,863' & 9,845' to plug back currently producing zones (Top perf @ 9,869'). Dump bail 30' sand on top of plug @ 9,845'.
- Stage 1:
  - Perforate new LGR interval from **9,552' – 9,806'.**
  - Prop Frac Perforations with **120,000** lbs 30/50 prop (w/ **3,000** lbs 100 mesh & **5,000** gals 15% HCl acid) (Stage 1 Recom).
- Stage 2:
  - RIH with 7" CBP & set @ 9,473'.
  - Perforate new LGR interval from **9,230' – 9,458'.**
  - Prop Frac Perforations with **110,000** lbs 30/50 prop (w/ **3,000** lbs 100 mesh & **5,000** gals 15% HCl acid) (Stage 2 Recom).
- Stage 3:
  - RIH w/ 7" CBP & set @ 9,161'.
  - Perforate new LGR interval from **8,850' – 9,146**'.
  - Acidize perforations with w/ **26,500 Gals 15% HCl Acid** (STAGE 3 Recom)
- Clean out well drilling up (2) 7" CBP's to ~9,830', leaving ~15' sand on top of 5" CBP @ 9,845' (5" plug @ 9,863' will remain, also). Top perf BELOW plug @ 9,869'.
- RIH w/ production tubing and rods.
- Clean location and resume production.

RECEIVED: Oct. 19, 2015

EP ENERGY

Current D&D+COROD Pumping Schematic

Company Name:	EP Energy	**Last Updated:**	5/1/2015
Well Name:	Thorne 3-31 B4	**By:**	Medina
Field, County, State:	Altamont - Bluebell, Duchesne, Utah	**TD:**	12,550'
Surface Location:	Lat: 40˚ 15' 31.95974" N Long: 110˚ 22' 28.90789" W	**BHL:**	
Producing Zone(s):	Wasatch	**Elevation:**	
			* pick up rods 29'

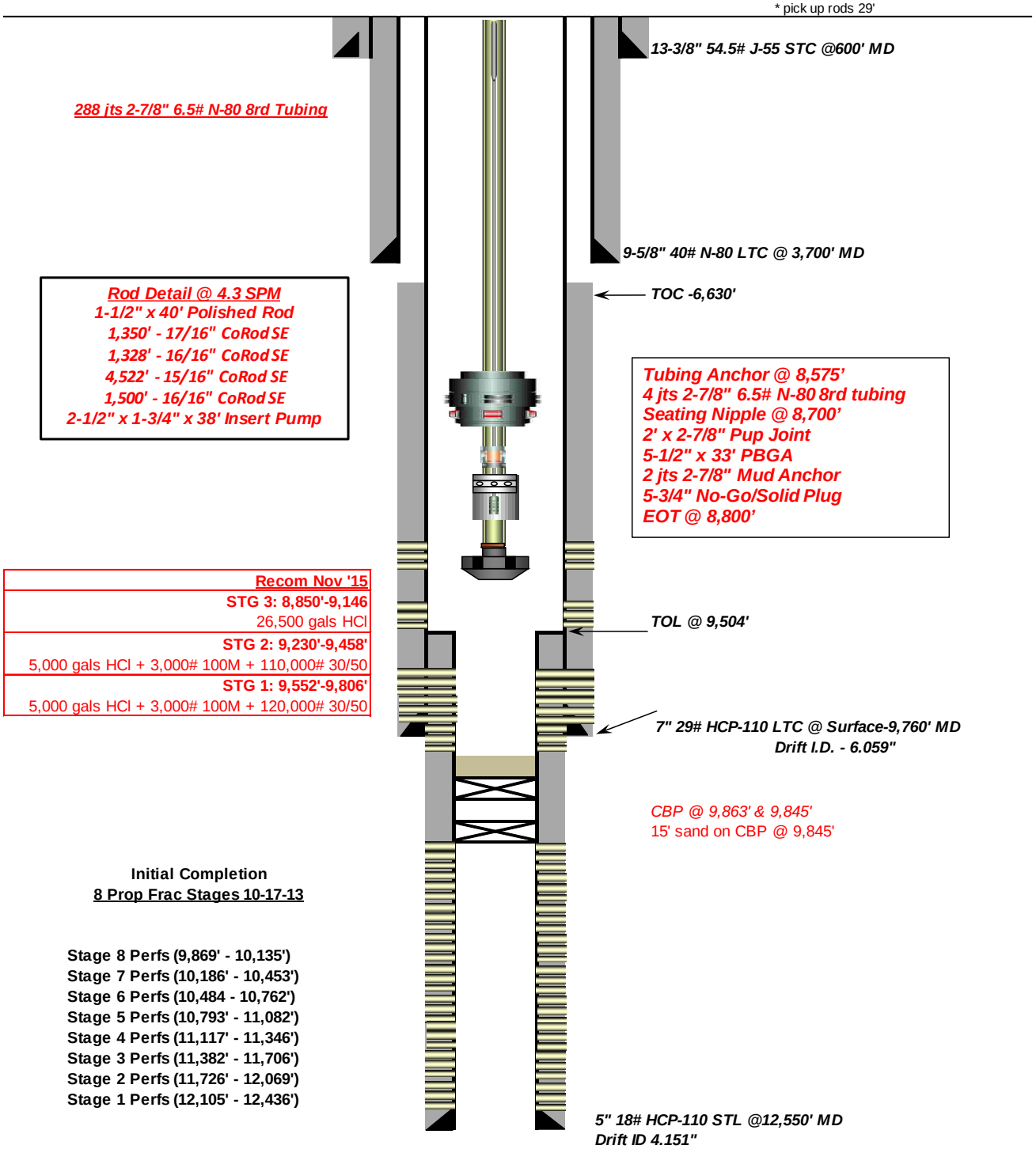


RECEIVED: Oct. 19, 2015

EP ENERGY

Proposed RECOM Pumping Schematic

Company Name:	EP Energy	**Last Updated:**	10/16/2015
Well Name:	Thorne 3-31 B4	**By:**	Medina/Tomova
Field, County, State:	Altamont - Bluebell, Duchesne, Utah	**TD:**	12,550'
Surface Location:	Lat: 40° 15' 31.95974" N Long: 110° 22' 28.90789" W	**BHL:**	
Producing Zone(s):	Wasatch	**Elevation:**	
			* pick up rods 29'



RECEIVED: Oct. 19, 2015

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: Thorne 3-31B4

2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.

9. API NUMBER: 43013520860000

3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002

PHONE NUMBER: 713 997-5038 Ext

9. FIELD and POOL or WILDCAT: ALTAMONT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0900 FSL 1400 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 31 Township: 02.0S Range: 04.0W Meridian: U

COUNTY: DUCHESNE

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 1/18/2016	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Drill Out

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drill out CBP's @ 9850' & 9840' w/ 20' sand.

Approved by the
Utah Division of
Oil, Gas and Mining
January 13, 2016

Date: _____

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Maria S. Gomez	713 997-5038	Principal Regulatory Analyst
SIGNATURE N/A		**DATE** 1/13/2016

RECEIVED: Jan. 13, 2016

Sundry Number: 69050 API Well Number: 43013520860000

Reset Form

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECOMPLETION

AMENDED REPORT ☐ (highlight changes)

FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME:

b. TYPE OF WORK: NEW WELL ☐ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☑ OTHER

8. WELL NAME and NUMBER: Thorne 3-31B4

2. NAME OF OPERATOR: EP Energy E&P Company, L.P.

9. API NUMBER: 4301352086

3. ADDRESS OF OPERATOR: 1001 Louisiana CITY Houston STATE TX ZIP 77002

PHONE NUMBER: (713) 997-5038

10 FIELD AND POOL, OR WILDCAT: Altamont

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 900' FSL & 1400' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW: 900' FSL & 1400' FEL
AT TOTAL DEPTH: 900' FSL & 1400' FEL

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 31 2S 4W U

12. COUNTY: Duchesne

13. STATE: UTAH

14. DATE SPUDDED: 8/27/2013

15. DATE T.D. REACHED: 9/21/2013

16. DATE COMPLETED: 11/14/2015 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 6051

18. TOTAL DEPTH: MD 12,550 TVD 12,543

19. PLUG BACK T.D.: MD TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Submitted with Initial Completion

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
		Submitted							
		with							
		Initial							
		Completion							

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.875	8,812							

26. PRODUCING INTERVALS / **27. PERFORATION RECORD**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Wasatch	9,781	12,436	9,775	12,429	9,552 – 9,806		66	Open ☑ Squeezed ☐
(B) LGR	7,999	9,781	7,993	9,775	9,230 – 9,456		69	Open ☑ Squeezed ☐
(C)					8,850 – 9,146		69	Open ☑ Squeezed ☐
(D)								Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
9552-9806	5145 gals 15% HCL Acid, 3000# 100 Mesh, 117913# 30/50 White
9230-9456	5091 gals 15% HCL Acid, 3000# 100 Mesh, 112247# 30/50 White
8850-9146	29928 gals 15% HCL Acid

29. ENCLOSED ATTACHMENTS: CBP's 9850 & 9840 with 30' sand on top

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: Prod

(5/2000)

(CONTINUED ON BACK)

RECEIVED: Jan. 12, 2016

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
11/14/2015	11/16/2015	24		161	63	421	Rod Pump

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
	247	51	38.00	1,348	0		161	63	421	Prod

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

Sold

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				UGR	4,865
				MGR	6,556
				LGR	7,999
				Wasatch	9,781

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Maria S. Gomez TITLE Principal Regulatory Analyst

SIGNATURE Maria S. Gomez Digitally signed by Maria Gomez DN: cn=Maria Gomez, o=EP Energy, ou=Regulatory, email=maria.gomez@epenergy.com, c=US Date: 2016.01.12 16:14:06 -06'00' DATE 1/12/2016

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

RECEIVED: Jan. 12, 2016

1 General

1.1 Customer Information

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	THORNE 3-31B4		
Project	ALTAMONT FIELD	**Site**	THORNE 3-31B4
Rig Name/No.		**Event**	RECOMPLETE LAND
Start date	10/28/2015	**End date**	11/13/2015
Spud Date/Time	8/30/2013	**UWI**	THORNE 3-31B4
Active datum	KB @6,068.3ft (above Mean Sea Level)		
Afe No./Description	165541/54983 / THORNE 3-31B4		

2 Summary

2.1 Operation Summary

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
10/30/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON TOOH W/ CO-ROD. FILLED OUT AND REVIEWED JSA.
	7:30	10:00	2.50	WOR	06		P		PUMPED 60 BBLS DOWN CSG. LD POLISH ROD. WORKED PUMP OFF SEAT. FLUSHED TBG 65 BBLS.
	10:00	13:30	3.50	WOR	39		P		TOOH W/ CO-ROD STRING AND PUMP. WHILE PUMPING 40 BBLS DOWN TBG TO KEEP CO-ROD CLEAN. RD CO-ROD RIG
	13:30	14:30	1.00	MIRU	01		P		MIRU SERVICE RIG.
	14:30	16:00	1.50	WOR	16		P		ND WELLHEAD AND B-FLANGE. INSTALLED 4' PERF SUB, 2' SUB HANGER AND DOUBLE CHECK VALVE. NU AND PRESSURE TEST 5K BOP.
	16:00	17:30	1.50	WOR	39		P		RELEASED TAC. RU SCANNERS. SOOH SCANNING TBG. TOOH W/ 120-JTS 2 7/8 L-80 EUE TBG ALL YELLOW. EOT @ 7192'. CLOSED IN WELL. CLOSED AND LOCKED PIPE RAMS.CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. CLOSED TIW VALVE AND INTALLED NIGHT CAP. SDFN.
10/31/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON SCANNING TUBING. FILLED OUT AND REVIEWED JSA.
	7:30	10:30	3.00	WOR	39		P		0 TSIP 0 CSIP. OPENED WELL. CONTINUED SCANNING TBG. SCANNED168-JTS 2 7/8 L-80 EUE TBG (TTL 282 YELLOW, 5-BLUE AND 1-RED). RD SCANNERS LD 45-JTS 2 3/8 L-80 EUE TBG, TAC, 4-JTS 2 3/8 L-80 EUE TBG AND BHA.
	10:30	14:00	3.50	WLWORK	26		P		RU WIRELINE PRESSURE TEST LUBRICATOR. RIH W/ 4.0 GR/JB. TAGGED @ 9861'. TRIED TO WORK DOWN GOT STUCK. KEPT WORKING GR/JB GOT IT TO GO DOWN FREE BUT NOT UP KEPT TAGGING 9861'. WHILE WORKING GR/JB PULLED OUT OF CABLE HEAD. POOH. RD WIRELINE.
	14:00	16:30	2.50	WOR	42		N		WAIT ON TUBING AND OVERSHOT
	16:30	19:00	2.50	WOR	52		P		TALLIED AND RIH W/ 3 3/4 OVERSHAOT W/ 2 3/4 OVERSHOT, 3' EXTENSION, TOP SUB, 98- JTS 2 3/8 L-80 EUE TBG, X-OVER AND 22-JTS 2 7/8 L-80 EUE TBG. EOT @ 3941',CLOSED IN WELL. CLOSED AND LOCKED PIPE RAMS.CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. CLOSED TIW VALVE AND INTALLED NIGHT CAP. SDFN.

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON TRIPPING TUBING FILLED OUT AND REVIEWED JSA
	7:30	17:30	10.00	WOR	52		P		50 TSIP, 50 CSIP. BLED DOWN WELL. CONTINUED RIH W/ 184-JTS 2 7/8 L-80 EUE TBG. TAGGED @ 9861' PUSHING DOWN THRU IT @ 5,000 OVER. PULIING THRU IT @ 5,000 OVER WORKED THRU IT FEW TIMES. CONTINUED RIH TAGGED @ 12446' SET DOWN PULLED 20,000 OVER TO GET FREE. TOOH W/ 78-JTS 2 7/8 EUE TBG. PULLED THRU TIGHT SPOT @ 9861'@ 2000 OVER . CONTINUED TOOH W/ 206 JTS 2 7/8 L-80 EUE TBG, X-OVER, 99-JTS 2 3/8 L-80 EUE TBG, OVER SHOT, AND CCL GR/JB. RIH W/ 98-JTS 2 3/8 L-80 EUE TBG . LD 98-JTS 2 3/8 TBG. CLOSED IN WELL. CLOSED AND LOCKED BLIND RAMS.CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. CLOSED TIW VALVE AND INSTALLED NIGHT CAP. SDFN.
11/2/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WIRELINE SAFETY FILLED OUT AND REVIEWED JSA.
	7:30	14:00	6.50	WLWORK	26		P		0 CSIP. RU WIRELINE SET CBP @ 9850' FILLED CSG W/ 240 BBLS PRESSURE TEST @ 2000 PSI HELD. RIH PRESSURED TO 2000 PSI SET SECOND CBP @ 9840', RIH W/ 6.00 GRJB TO LINER TOP @ 9504' MADE 2 RUNS DUMPED BAILED 30' SAND. RD WIRELINE
	14:00	17:00	3.00	WOR	16		P		ND BOP NU FRAC VALVE. PRESSURE TEST CSG @ 8000 PSI HELD, NU 2 HCR VALVES AND GOAT HEAD. CLOSED IN WELL CLOSED FRAC VALVES. CLOSED CSG VALVE AND INSTALLED NIGHT CAPS.
11/3/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON PRESSURE TESTING. FILLED OUT AND REVIEWED JSA.
	7:30	8:30	1.00	WHDTRE	18		P		PRESSURE TEST FRAC STACK @ 9500 PSI HELD.
	8:30	11:00	2.50	WLWORK	21		P		MIRU WIRELINE PERFORATED STAGE #1 FROM 9806' TO 9552'. ALL PERFS CORRELATED TO THE PERFORATORS SECTOR CBL GAMMA RAY CCL LOG RUN #1 DATED 10/4/2013. 22 NET FT. 66 SHOTS. USING 2 3/4" GUNS, 16 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 1000 PSI. FINAL PRESSURE 300 PSI. CLOSED IN WELL. CLOSED AND LOCKED FRAC VALVES. CLOSED CSG VALVE AND INSTALLED NIGHT CAPS. SDFN.
11/4/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP FRAC EQUIPMENT. FILLED OUT AND REVIEWED JSA.
	7:30	18:00	10.50	MIRU	01		P		FRAC CREW COULDN'T MAKE IT. SENT RIG CREW HOME. FRAC SPOTTE IN 6 PUMP TRUCKS, DATA VAN AND CHEMICAL TRAILER. SDFN.
11/5/2015	6:00	6:30	0.50	MIRU	28		P		HELD SAFETY MEETING ON RIGGING UP FRAC EQUIPMENT. FILLED OUT AND REVIEWED JSA.
	6:30	10:30	4.00	MIRU	01		P		MIRU C&J FRAC EQUIPMENT. LINES NOT UP TO DATE ON INSPECTION.
	10:30	20:00	9.50	MIRU	01		P		WAIT FOR AND INSTALL DIFFERENT HARD LINE. SDFN.
11/6/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON PUMPING PRESSURE. FILLED OUT AND REVIEWED JSA
	7:30	12:30	5.00	SITEPRE	42		N		FINISHED RIGGING UP FRAC EQUIPMENT. WAIT ON BOSQUE COL2 UNIT TREATED TANKS

RECEIVED: Jan. 12, 2016

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	12:30	14:00	1.50	STG01	35		P		PRESSURE TEST LINES @ 9500 PSI. OPENED UP WELL W/ 150 PSI. BREAK DOWN STAGE # 1 PERFS @ 4162 PSI, 9.8 BPM, 13 BBLS PUMPED. EST INJ RATE 31.7 BPM, 4729 PSI. STEP RATE TEST 36 OPEN PERFS. I.S.I.P. 3414 PSI. F.G. .79, 5 MIN 2972 PSI, 10 MIN 2860 PSI. TREATED PERFS W/ 5000 GALS 15% HCL ACID. PUMPED 3000 LBS 100 MESH IN 1/2 PPG STAGE AND 117913 LBS WHITE 30/50. IN .5#, 1#, 1.5#, 2# AND 3# STAGES. AVG RATE 68 BPM, MAX RATE 69 BPM. AVG PRESS 4979, MAX PRESS 7068. I.S.I.P. 3097 PSI. F.G. .753. 5 MIN 2963 PSI, 10 MIN 2924 PSI. SHUT WELL IN 3649 BBLS TO RECOVER. TURNED WELL OVER TO WIRELINE
	14:00	16:30	2.50	STG02	21		P		RU WIRELINE PERFORATED STAGE #2 FROM 9458' TO 9230'. ALL PERFS CORRELATED TO THE PERFORATORS SECTOR CBL GAMMA RAY CCL LOG RUN #1 DATED 10/4/2013. 23 NET FT. 69 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 2600 PSI. FINAL PRESSURE 1200 PSI. TURNED WELL OVER TO FRAC CREW.
	16:30	19:00	2.50	STG02	35		N		PRESSURE TEST LINES @ 9430 PSI. OPENED UP WELL W/ 1345 PSI. BREAK DOWN STAGE # 2 PERFS @ 1923 PSI, 7.3 BPM, 8 BBLS PUMPED. EST INJ RATE 31.1 BPM, 2219 PSI. STEP RATE TEST ALL PERFS OPEN. I.S.I.P. 1410 PSI. F.G. .58, 5 MIN 1216 PSI, 10 MIN 1165 PSI. TREATED PERFS W/ 5000 GALS 15% HCL ACID. PUMPED 3000 LBS 100 MESH IN 1/2 PPG STAGE AND 3538. LBS WHITE 30/50. IN .5#. BELT ON SAND MASTER QUIT WORKING FLUSHED WELL TO BTM PERF. AVG RATE 66 BPM, MAX RATE 72 BPM. AVG PRESS 2429 , MAX PRESS 3057. I.S.I.P. 1549 PSI. F.G. .599, 5 MIN 1481 PSI, 10 MIN 1427PSI. SHUT IN WELL WORKED ON SAND MASTER. THINK KEY WAY ON BELT DRIVE, SHEARED. SDFN.
11/7/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON ICE PLUGS FILLED OUT AND REVIEWED JSA.
	7:30	10:00	2.50	WOR	42		P		WAIT ON FRAC CREW
	10:00	11:30	1.50	STG02	35		P		PRESSURE TEST LINES @ 9575 OPENED W/ 814 PSI.PUMPED 3000 LBS WHITE 30/50 IN 1/2 PPG STAGE. PUMP CROSSLINK PAD THEN PUMPED 105,709 LBS WHITE 30/50. IN .5#, 1#, 1.5#, 2# AND 3# STAGES. AVG RATE 69 BPM, MAX RATE 71 BPM. AVG PRESS 2676, MAX PRESS 3848. I.S.I.P. 1909 PSI. F.G. .637. 5 MIN 1803 PSI, 10 MIN 1734 PSI. SHUT WELL IN 2985 BBLS TO RECOVER. TURNED WELL OVER TO WIRELINE
	11:30	13:30	2.00	STG03	21		P		RU WIRELINE SET CBP @ 9170' W/ 1400 PSI. PERFORATED STAGE #3 FROM 9146' TO 8850'. ALL PERFS CORRELATED TO THE PERFORATORS SECTOR CBL GAMMA RAY CCL LOG RUN #1 DATED 10/4/2013. 23 NET FT. 69 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 1400 PSI. FINAL PRESSURE 1350 PSI. TURNED WELL OVER TO FRAC CREW.
	13:30	14:30	1.00	STG03	35		P		PRESSURE TEST LINES @ 8879. OPENED WELL W/ 1328 PSI. BREAK DOWN STAGE #3 PERFS @ 2990 PSI, 29 BPM, 20 BBLS PUMPED. EST INJECTION RATE 31 BPM 2209 PSI. I.S.I.P. 1530 PSI F.G. ..609. TREATED PERFS W/ 13250 GALS 15% HCL ACID.DROPPED 95 BIO BALLS. THEN PUMPED 13250 GAL 15% HCL. AVG RATE 45.3 BPM, MAX RATE 50.1 BPM. AVG PRESS 2511 PSI, MAX PRESS 7645 PSI. I.S.I.P. 1588 PSI, F.G. .609, SHUT IN WELL. 1226 BBLS TO RECOVER STARTED RIGGING DOWN FRAC EQUIPMENT.
	14:30	17:30	3.00	RDMO	02		P		RD FRAC EQUIPMENT.
	17:30	19:30	2.00	WOR	18		P		WAIT TO OPEN WELL

RECEIVED: Jan. 12, 2016

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	19:30	6:00	10.50	STG02	19		P		OPEN WELL @ 7:30 1150 ON 12 CHOKE. 725 PSI. 14 CHOKE, RECOVERED 0 BBLS OIL, 408 BBLS H20 AND 0 MCF.
11/8/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON ND FRAC VALVES. FILLED OUT AND REVIEWED JSA.
	7:30	10:00	2.50	WOR	16		P		WELL STILL FLOWING ND TOP HCR VALVE AND GOAT HEAD. RAN FLOWLINE TO TREATER,
	10:00	6:00	20.00	WOR	19		P		400 PSI ON 16 CHOKE. RECOVERED 0 MCF, 0 BBLS OIL, AND 944 BBLS H2O.
11/9/2015	6:00	7:30	1.50	FB	28		P		HELD SAFETY MEETING ON FLOWBACK PROCEDURE. FILLED OUT AND REVIEWED JSA.
	7:30	6:00	22.50	FB	19		P		250 PSI ON 16 CHOKE. RECOVERED 0 MCF, 0 BBLS OIL, AND 573 BBLS H2O.
11/10/2015	6:00	7:30	1.50	CTU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP COIL TUBING. FILLED OUT AND REVIEWED JSA..
	7:30	10:30	3.00	MIRU	01		P		MIRU 2" COIL TUBING. MU BHA W/ 6" BLADED INSERT MILL PRESSURE TEST LUBE AND FLOW BACK LINE @ 8500 PSI HELD.
	10:30	23:00	12.50	CTU	10		P		RIH PUMPING 1 BPM AND RETURNING 1 BPM. TO 8500'. INCRESED RATE TO 3 BPM AND RETURN 3 1/2 BPM @ 200 PSI. DRILLOUT CBPS sET @ 9170' AND 9473' CHASED CBP TO LINER TOP. @ 9504' TOOH W/ COIL TBG AND 6" MILL. RIH W/ BHA AND 4 1/8" JZ ROCK BIT. FINISHED DRILLING CBP @ LT @ 9504' CLEANED OUT TO PBTD @ 9820', CICULATE CLEAN FOR 1 HR. TOOH W/ COIL TBG @ 4 1/8 BIT. BUMPED UP.
	23:00	1:00	2.00	CTU	02		P		LD BHA, BLEW COIL TUBING DRY. FINISNHED RD COIL TUBING OPENED WELL ON 12 CHOKE W/ 150 PSI.
	1:00	6:00	5.00	FB	19		P		250 PSI ON 14 CHOKE. RECOVERED 0 MCF, 0 BBLS OIL, AND 105 BBLS H2O.
11/11/2015	6:00	6:30	0.50	FB	28		P		HELLD SAFETY MEETING ON FLOWBACK PROCEDURES. FILLED OUT AND REVIEWED JSA.
	6:30	6:00	23.50	FB	19		P		50 PSI ON 48/48 CHOKE. RECOVERED 0 MCF, 0 BBLS OIL, AND 598 BBLS H2O.
11/12/2015	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WELL CONTROL. FILLED OUT AND REVIEWED JSA.
	7:30	9:30	2.00	WOR	15		P		OPENED WELL THRU 2" VALVE TO FLOW BACK TANK. FLOWING A LITTE WATER. PUMPED 200 BBLS BRINE @ 5 BPM @ 800 PSI. ISIP 200 PSI. SHUT IN WELL FOR 1/2 HOUR PRESSURE DROPPED TO 0 PSI. FLOWED BACK 15 BBLS WELL DIED.
	9:30	11:30	2.00	WOR	16		P		ND FRAC VALVE NU AND TESTED BOP.
	11:30	14:00	2.50	WOR	39		P		RIH W/ 5 3/4 SOLID NO-GO, 2-JTS 2 7/8 L-80 EUE TBG, 5 3/4 PBGA, 2'-2 7/8 N-80 EUE TBG SUB, SN, 4'-2 7/8 N-80 EUE TBG SUB, 4-JTS 2 7/8 L-80 EUE TBG, 7" TAC, 262-JTS 2 7/8 L-80 EUE TBG. SET TAC @ 8574', SN @ 8709' AND EOT @ 8812'.
	14:00	16:00	2.00	WOR	16		P		RD RIG FLOOR, ND BOP. NU WELL HEAD AND FLOWLINES, SHUT IN WELL. CLOSED ALL CSG AND TBG VALVES TO TREATER. TOO WINDY TO RD RIG. SDFN.
11/13/2015	10:00	11:30	1.50	MIRU	01		P		ROAD RIG & EQUIP FROM THE 4-9C4 TO 3-31B4, MIRU COROD & EQUIPMENT
	11:30	13:30	2.00	INARTLT	06		P		FLUSH TBG W/ 60 BBLS HOT 2% KCL, TBG FLOWING BACK, PUMP 20 BBLS BRINE WTR, STILL FLOWING BACK, PUMP 30 MORE BBLS BRINE, TBG WENT ON SLIGHT VACUUM.

RECEIVED: Jan. 12, 2016

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	13:30 17:30	4.00	INARTLT	39		P		RIH W/ 2 1/2" X 1 3/4" X 38' HVF PUMP, 2' STAB SUB, ON/OFF TOOL, 5675' # 5 COROD, CUT # 5 COROD, POOH SPOOLING UP 1153' # 5, WELD # 5 TO # 6 COROD, CLAMP OFF COROD, SECURE WELL, SDFD.
11/14/2015	6:00 7:00	1.00	INARTLT	28		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) WELDING COROD
	7:00 9:30	2.50	INARTLT	03		P		TBG TRYING TO FLOW, PUMPED 20 BBLS BRINE DOWN TBG, CONTINUE RIH W/ 1328' # 6 & 1300' # 7 COROD, TAG PSN, SPACE OUT COROD, CUT & WELD ON 1" PIN TO # 7 COROD, P/U 2', 4', 6', 8' SUBS & POLISH ROD, SEAT PUMP
	9:30 10:00	0.50	INARTLT	18		P		FILL TBG W/ 5 BBLS 2% KCL, STROKE TEST PUMP TO 1000 PSI, GOOD TEST, FLUSH FLOW LINE W/ 10 HOT BBLS
	10:00 11:30	1.50	RDMO	02		P		RDMO COROD RIG, SLIDE ROTA FLEX AHEAD, HANG OFF COROD, START UNIT, TWOTO.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Thorne 3-31B4

2. NAME OF OPERATOR:
EP ENERGY E&P COMPANY, L.P.

9. API NUMBER:
43013520860000

3. ADDRESS OF OPERATOR:
1001 Louisiana , Houston, TX, 77002

PHONE NUMBER:
713 997-5038 Ext

9. FIELD and POOL or WILDCAT:
ALTAMONT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0900 FSL 1400 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWSE Section: 31 Township: 02.0S Range: 04.0W Meridian: U

COUNTY:
DUCHESNE

STATE:
UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 1/25/2016	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: DO Plugs

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled out CBP's @ 9840' & 9850'. See attached for details. Open perfs 8850'-9806' & 9869'-12436'.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
February 08, 2016

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Maria S. Gomez	713 997-5038	Principal Regulatory Analyst
SIGNATURE		**DATE**
N/A		2/8/2016

RECEIVED: Feb. 08, 2016

CENTRAL DIVISION

ALTAMONT FIELD
THORNE 3-31B4
THORNE 3-31B4
RECOMPLETE LAND

Operation Summary Report

RECEIVED: Feb. 08, 2016

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	13:30	17:30	4.00	INARTLT	39		P		RIH W/ 2 1/2" X 1 3/4" X 38' HVF PUMP, 2' STAB SUB, ON/OFF TOOL, 5675' # 5 COROD, CUT # 5 COROD, POOH SPOOLING UP 1153' # 5, WELD # 5 TO # 6 COROD, CLAMP OFF COROD, SECURE WELL, SDFD.
11/14/2015	6:00	7:00	1.00	INARTLT	28		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) WELDING COROD
	7:00	9:30	2.50	INARTLT	03		P		TBG TRYING TO FLOW, PUMPED 20 BBLS BRINE DOWN TBG, CONTINUE RIH W/ 1328' # 6 & 1300' # 7 COROD, TAG PSN, SPACE OUT COROD, CUT & WELD ON 1" PIN TO # 7 COROD, P/U 2', 4', 6', 8' SUBS & POLISH ROD, SEAT PUMP
	9:30	10:00	0.50	INARTLT	18		P		FILL TBG W/ 5 BBLS 2% KCL, STROKE TEST PUMP TO 1000 PSI, GOOD TEST, FLUSH FLOW LINE W/ 10 HOT BBLS
	10:00	11:30	1.50	RDMO	02		P		RDMO COROD RIG, SLIDE ROTA FLEX AHEAD, HANG OFF COROD, START UNIT, TWOTO.
1/21/2016	7:30	10:30	3.00	MIRU	01		P		ROAD COROD RIG FROM YARD TO 3-31B4, WRITE & REVIEW JSA ON SLICK SURFACES, HAD TO BLADE SNOW OFF LOCATION, SLIDE ROTA FLEX BACK, MIRU RIG & HOT OILER.
	10:30	12:30	2.00	PRDHEQ	14		P		L/D POLISH ROD, WORK COROD JARRING ON PUMP, PUMPING HOT 2% KCL DOWN CSG, UNABLE TO UNSEAT PUMP, RELEASE OFF OF ON/OFF TOOL.
	12:30	15:00	2.50	PRDHEQ	39		P		POOH W/ 1261' # 7, 1328' # 6, 4522' # 5, 1500' # 6 SE COROD & ON/OFF TOOL, SECURE WELL.
	15:00	16:00	1.00	RDMO	02		P		RDMO COROD RIG & HOT OILER.
1/22/2016	6:00	7:30	1.50	MIRU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP RIG. FILLED OUT AND REVIEWED JSA.
	7:30	8:30	1.00	MIRU	01		P		MIRU SERVICE RIG. WHILE PUMPING 80 BBLS DOWN CSG.
	8:30	10:30	2.00	WLWORK	21		P		RU WIRELINE RIH PERFORATE TBG @ 8640' RD WIRELINE.
	10:30	12:30	2.00	WOR	16		P		ND WELLHEAD, NU BOP. PRESSURE TEST BOP @ 5000 PSI HELD
	12:30	13:00	0.50	WOR	06		P		FLUSHED TBG W/ 50 BBLS HOT 2% KCL.
	13:00	16:30	3.50	WOR	39		P		TAC HANGING UP, TOOH W/ 262-JTS 2 7/8 L-80 EUE TBG, TAC, 4-JTS 2 7/8 L-80 EUE TBG. LD BHA.
	16:30	17:30	1.00	WOR	18		P		CLOSED IN WELL. CLOSED AND LOCKED BLIND RAMS,CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. RAN PUMP LINES AND SDFN.
1/23/2016	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON PICKING UP TUBING. FILLED OUT AND REVIEWED JSA.
	7:30	12:00	4.50	WOR	39		P		TALLIED AND RIH W/ 4 1/8" BIT, BIT SUB, 101 JTS 2 3/8 L-80 EUE TBG, X-OVER AND 202 JTS 2 7/8 TAGGED FILL @ 9804'. RU POWER SWIVEL.
	12:00	16:30	4.50	WOR	10		P		PUMPED 400 BBLS @ 8 BPM ESTABLISHED REVERSE CIRCULATION. SLOWED RATE TO 5 BPM RETURNING 3 BPM WASHED DOWN TO CBP @ 9840' DRILLOUT CBPs 9840 AND 9850' CICRCULATE TBG CLEAN, CHASED REMAINS OF CBP TO 12463'. BTM PERF @ 12436'.
	16:30	17:30	1.00	WOR	39		P		TOOH W/ 95-JTS 2 7/8 L-80 EUE TBG EOT @ 9405', CLOSED AND LOCKED PIPE RAMS, CLOSED TIW VALVE AND INSTALLED NIGHT CAP.CLOSED CSG VALVES AND INSTALLED NIGHT CAPS.
1/24/2016	6:00	7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON TRIPPING TUBING. FILLED OUT AND REVIEWED JSA.
	7:30	10:30	3.00	WOR	39		P		0 TSIP, 0 CSIP. TOOH W/ 201-JTS 2 7/8 L-80 EUE TBG, X-OVER, 101-JTS 2 3/8 L-80 EUE TBG, BIT SUB AND 4 1/8" BIT.

RECEIVED: Feb. 08, 2016

2.1 Operation Summary (Continued)

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	10:30	13:30	3.00	WOR	39		P		RIH W/ 2 3/8 BULL PLUG, 2-JTS 2 3/8 L-80 EUE TBG, 2'-2 3/8 N-80 TUBING SUB, DESANDER D-2305, 4'-2 3/8 TUBING SUB, 2 3/8 SN, 4-JTS 2 3/8 L-80 EUE TBG, 5" TAC, 59-JTS 2 3/8 L-80 EUE TBG, X-OVER AND 275-JTS 2 7/8 L-80 EUE TBG. SET TAC @ 10877'. SN @ 11008', EOT @ 11100'. LANDED TBG W/ 6' SUB AND TBG HANGER.
	13:30	14:30	1.00	WOR	16		P		RD RIG FLOOR, ND BOP. REMOVED HANGER AND 6' SUB. LANDED TBG W/ 25,000 TENSION.NU WELLHEAD. OPENWELL TO TREATER.
	14:30	15:30	1.00	RDMO	02		P		RD RIG AND SDFN.
1/25/2016	6:00	6:00	24.00	WOR	18		P		NO ACTIVITY
1/26/2016	6:00	8:30	2.50	PRDHEQ	18		P		CREW TRAVEL HELD SAFETY MEETING ON FLUSHING TUBING, FILLED OUT AND REVIEWED JSA. FLUSHED TBG W/ 55 BBLS KCL. 10 GALS CORROSION INHIBITOR. 5 BBLS KCL
	8:30	9:30	1.00	MIRU	01		P		MIRU CO-ROD RIG.
	9:30	15:00	5.50	PRDHEQ	39		P		RIH W/ 2" X 1 1/2" X 36' RHBC HVF ACCELERATED PUMP, RIH W/ PUMP, 1500' 16/16, 4522' 15/16, 1328' 16/16 AND 1261' 17/16. WELDED 0N 2275 18/16 WELDED TOP PIN. SPACED OUT W/ 1-8', 1-6', 1-4' 1-2' X 1" SUBS. FILLED TBG W/ 20 BBLS PRESSURE AND STROKE TEST @ 1000 PSI HELD.
	15:00	16:00	1.00	RDMO	02		P		RD CO-ROD RIG. SLID IN PUMPING UNIT. PUT WELL ON PRODUCTION.